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## George Babikian Replies to Arco Critics
## How D&W Profits from Energy Conservation
## Does Court Ruling Fuel Flat Rent Trend?

# NPN

National Petroleum News

A PUBLICATION FOR MARKETING MANAGEMENT • OPERATIONS • FUEL OIL • TBA/AFTERMARKET

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## How Three Jobbers Train Their Sons

NOJC Show Issue

# NATIONAL PETROLEUM NEWS

NOVEMBER 1983 VOL. 75, NO. 11

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Passing on the business to the next generation can be enormously challenging and uniquely rewarding at the same time. *NPN* takes a close look at the Ruschhaupts of Fresno, Calif., the Griffiths of Stillwater, Okla., and the Parrishes of Manassas, Va., to find out how successful jobbers handle succession. **Page 58**

**Cover design by Marcus Design, Inc.**

Arco, with an impressive, if not enigmatic track record in recent times, has been the target of much industry criticism and skepticism. George Babikian defends his company's strategies up- and downstream. **Page 29**

Hampered by natural gas conversions, D&W Oil, Detroit, devoted itself to kerosine marketing and built an 'energy store' to harness the space heating and energy conservation trends for a company comeback. **Page 66**

# • TRENDS

## PMPA No Shield Against Sharp 'Flat Rent' Hikes

**Fearful that oil companies would like to run their stations, lessee operators might have lost legal ground in a recent federal case involving protection against sharp rent hikes that often chase away dealers. And, refiners with an eye on independent dealers' profitable urban outlets might have cause for celebration.**

In September, the U.S. District Court for eastern Pennsylvania in effect said that a lessee dealer can't use the Petroleum Marketing Practices Act (PMPA) to fight a rent increase. The case involved Amerada Hess and one of its lessee dealers. It hinged on the refiner's decision to change the way it determined the rents for its stations. That is, instead of basing rents on volume (as it had for years), Hess notified the dealer it henceforth would base them on the value of the property and station fixtures. For the dealer in question—one of 140 affected by the change—that meant a 130% rent increase. (It later was reduced by 20%)

Other oil companies besides Hess have been attempting to switch from the traditional industry practice of gallonage-based rentals to flat rentals, based on the market value of the land, buildings and improvements of a lessee station. Critics say the old system was often a disincentive to increasing sales volume, and the rentals received were often less than a property's market value. Arco, for one, has been moving towards so-called "economic" or flat rentals in its drive to achieve low-cost retail operations.

The Hess dealer, however, contested the move under PMPA provisions. He argued that the supplier required him to sign the new dealer agreement, despite its obvious financial consequences and that Hess acted "arbitrarily and discriminatorily" in changing its rent formula.

The court essentially ruled that Hess acted "in good faith" when it changed the way it charged rents. The decision was not aimed at any particular dealer or dealers, the court concluded, and it was made "in the normal case of business." The upshot: PMPA does not apply.

By upholding a refiner's right to change its method for determining rents under PMPA's "good faith" clause, the court has opened the door for many refiner/marketers, who covet profitable urban locations run by independent lessee marketers. When it comes to converting from lessee dealerships to direct-supplied outlets, urban units obviously are the most attractive candidates.

The ruling, however, didn't answer two important questions. First, is a change in rental policy allowed under PMPA when its effect is to force independent dealers out of profitable locations while at the same time, allowing them to continue in less valuable locations? And second, does PMPA permit switches in rental policy for some types of lessee outlets but not others?

The first of those questions, in fact, nearly came before the court in the Hess case. But before the judge in the case could issue his ruling, the dealer suing Hess dropped a complaint that the rent policy change was designed to force him and others out of business. It's a question that undoubtedly will be addressed sometime soon. Refiners, including most of the majors and many of the independents, have siezed on rents as a way to increase marketing revenues without increasing wholesale product prices. And, thanks to tough competition on the street, it's dealer and jobber margins that are squeezed when rents go up.

It is significant that in testimony in the Hess case, Hess officials said the new property value-based rent formula was recommended by the refiner's marketing department as a response to increasing costs and declining rental income (based, remember, on sales volume).

The district court's ruling also may have an adverse effect on marketers' ability to use PMPA to raise objections to the appraisals on which rents eventually may be based. The court said simply that differences in opinion over property values are not relevant concerns under PMPA. All that matters is that the refiner arrive at his policy for charging rent "in good faith."

In early October, it was not clear whether the Hess case ruling (Seicko vs. Amerada Hess Corp., No. 82-2088, ED Pa.) would be appealed, but it seemed unlikely. Attorneys familiar with PMPA say the decision offers meager grounds for appeal. They predict, however, that before the dust finally settles on the whole rental policy issue, there will be more suits under PMPA and federal antitrust statutes—including some class actions covering larger groups of marketers.

If the outcome of the Hess case is an indication of what the future holds, prospects for upcoming suits aren't very good. **—Thomas Goldsmith**

# • MARKETPLACE AT A GLANCE

### AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

| AUGUST | Gasoline (All types) | Leaded Regular | Unleaded Regular | Leaded Premium |
|---|---|---|---|---|
| U.S. City Avg. | $1.269 | $1.203 | $1.285 | $1.437 |
| Regions: | | | | |
| Northeast | 1.272 | 1.206 | 1.275 | NA |
| North Central | 1.281 | 1.232 | 1.304 | NA |
| South | 1.232 | 1.162 | 1.248 | NA |
| West | 1.298 | 1.216 | 1.322 | 1.441 |

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

### STOCKS (Add 000 bbl.)

| | 9/30/83 | 10/1/82 |
|---|---|---|
| **Gasoline (total)** | 231,344 | 236,705 |
| **Gasoline (unleaded*)** | 93,628 | 99,016 |
| **Kerosine **** | 34,643 | 33,699 |
| **Distillates** | 153,837 | 163,088 |
| **Residual** | 46,790 | 59,336 |

**Included in gasoline total.*

***Jet kero only; totals no longer kept by API and DOE.*

*Source: American Petroleum Institute.*

traded crude in the Gulf area. In our Philadelphia refinery, we run foreign crude. The only overall crude cost advantage we have is one we planned for—our ability to process heavier sour crudes and thus our raw material costs are lower because sour crude is cheaper than sweet crude. On a quality-adjusted basis, we have no crude cost advantage.

I don't want to minimize the importance of having a stable supply of crude. The advantage we have in having North Slope crude and a high percentage of self-sufficiency in domestic crude is being able to plan consistently.

This is a tremendous advantage, but in no way is the downstream end of ARCO's business being used to monitize crude. There is no need to do that. Our Oil & Gas people can sell all the crude they produce for the same price that they are charging us, so there is no need to have a downstream operation to move crude through the system.

*NPN:* Competitors might have understood ARCO if its price cutting lasted a month, or two or three, enabling it to build volume. But 15 months doesn't make sense.

*Babikian:* As I stated earlier, ARCO has positioned itself as a brand price marketer. It is our intention to market a top quality major oil company gasoline at a "no frills" price. Our price will continue to reflect the fact that we do not offer credit and over 90% of our retail volume is sold through self-serve.

*NPN:* ARCO's cheap Alaska crude and pricing tactics are inviting government intervention.

*Babikian:* We are convinced that the manner in which our North Slope crude is priced is entirely correct, and we are equally convinced that our pricing tactics are not only entirely legal, but in tune with what the marketplace for the 1980s demands.

Price is the single most important ingredient in the marketing of gasoline today. Evidence of this is all over the place. As you remember, when *NPN* was extolling the virtues of self-serve back in the late-'60s, less than 10% of all gasoline sold in this country was sold via self-serve.

This year, somewhere around 71% to 72% of all gasoline sold in this country will be sold via self-serve. Why? Because self-serve means lower price, and the increased price sensitivity by the consumer is where we think the action is going to be.

Our critics have done their best in recent months to get the government involved in our business—so far, they haven't succeeded, and I do not believe the government will intervene because it is not right for them to do so.

# C-Store Tie-In on Rise, But Station Still Tops

**Despite the dramatic 160% rise in number of convenience stores selling gasoline from 1977 to 1982, conventional service stations continue to be the dominate type of U.S. gasoline outlet, according to a *Lundberg Letter* study and another similar report.**

Lundberg's survey, based on refiner and marketer reports and "grass-roots" data, states that while the C-store trend is up, the "influence of C-store outlets has been somewhat overstated because total station population has been understated."

(The U.S. Bureau of the Census includes in its station count only those outlets which derive 50% or more of their income from petroleum products. Whereas, Lundberg's study includes all gasoline outlets, virtually regardless of petroleum product volume.) [NPN—Sept. '83, p12].

The 1977 Lundberg total is 263,348, or 49.2% bigger than the Census figure of 176,465. For 1982, Lundberg's 211,000-unit count dropped 29.4% from the 1977 tally, but it still totals over 66,000 more than the government's 1982 figures.

Another private-sector study tends to confirm the detailed findings of Lundberg. A portion of a National Petroleum Council survey of underground storage tanks led to a total gasoline unit count of roughly 211,000 also, says NPC. And, although the council would not release details of its findings in late September, NPC did indicate its breakdown of outlet by type tended to mirror that of Lundberg and additional sources. [See table.]

Conventional stations—those defined as providing "some degree" of automotive service, such as lube and oil change—number 93,400, says Lundberg. They accounted for about 44% of all gasoline outlets in 1982, versus a 50% share in 1977.

In addition to conventional outlets, the survey includes gasoline-only outlets, C-stores, automotive service facilities, car washes, department stores and truckstops. (Although Lundberg does include outlets owned by wholesalers—which the Census Bureau does not—it does not cover fleet fueling facilities.)

**Despite numerical declines, service stations still comprise 44% of gasoline outlets.**

Interestingly, while the number of "gas-only" outlets dropped some 22% to 62,300 in 1982 from 1977, they also dropped 1% in share of all gasoline outlet types by 1982—meaning more retailers operated with some kind of fuel tie-in than was the case in 1977.

Far more information is available on C-stores. Figures in a survey compiled by the National Assn. of Convenience Stores (NACS), indicate that of 51,150 C-stores in operation during 1982, 23,700 (or 46.3%) of them sold gasoline [NPN—March '83, p67]. Comparable figures from 1977 show 33,100 C-stores, 9,100 of which sold gasoline.

Of $37.2-billion in C-store sales in 1982, 35% consists of gasoline sales. And, the average C-store, according to NACS, pumped 38,000 gal. per month in 1982, a 4.1% increase over the previous

**Retail Gasoline Outlets by Type**

| | 1977 | 1982 |
|---|---|---|
| Conventional service stations | 132,000 | 93,400 |
| Gasoline-only stations | 80,200 | 62,300 |
| Convenience stores | 9,100 | 23,700 |
| Automotive service | 17,600 | 14,100 |
| Car washes | 16,600 | 11,100 |
| Department stores | 2,900 | 2,100 |
| Truckstops | 1,200 | 1,200 |
| Miscellaneous | 3,400 | 3,000 |
| | 263,000 | 210,800 |

**Source: *Lundberg Letter*, National Assn. of Convenience stores, International Carwash Assn., and National Assn. of Truck Stop Operators.**

ricultural-related businesses also were hurt by the drought," says the aide.

If the program becomes law, businesses proving direct losses from PIK would qualify for low-interest, 30-year federal loans. Jobbers could establish eligibility by comparing prior years' sales to sales during the PIK program, federal sources say.

In addition, the federal Small Business Administration (SBA) and the Farmers Home Loan Administration (FHLA) currently offer loan guarantee programs. Together they offered almost $3-billion in federal guarantees in 1983 to businesses unable to get a straight loan from a bank.

"We sent a communication out to people when PIK first came out that there may be some types of industries impacted adversely by this program," says a FHLA spokesman. "It was simply an effort to alert banks that people might be coming in looking for loans."

The Bank of America in San Francisco publicly announced it would offer loans to businesses hurt by PIK. And an American Bankers Assn. spokesman says many banks would be sympathetic to ailing rural jobberships.

Although some jobbers seem sympathetic toward farmers' financial woes, for many, it seems federal guarantees will not be enough to quell their indignation.

"See if the government will pay *us* for not selling *petroleum* products," said one Illinois jobber. *—Donna Lawrence*

# Octane Ratings Down, But Outlook Is Up

Even though Sun, Texaco and others have introduced higher-octane gasolines in marketplaces last summer, the change of pace came much too late to have any impact on the winter 1982-83 octane report issued recently by the government.

The latest round-up showed that the average octane number for unleaded gasolines above 90 actually declined last winter—from the 91.7 level it held in the preceding two surveys to 91.5

On the other hand, leaded gasoline improved fractionally, moving up from 89.0 to 89.1 last winter.

There has been an uneasy feeling in the industry for some time that as competition tightens for gallonage, it might trigger an octane number contest somewhat akin to the promotional heydays of the '60s. But octane number increases are expensive—very expensive. So, this unquestionably has a dampening effect on such notions [NPN—July '83, p27].

The national average of 91.5 for unleaded gasoline can only be considered misleading, at best. Octanes generally run higher east of the Rockies, and most particularly on the Atlantic Seaboard. (Most are in the 92.0 to 93.0 range there.)

A number of gasolines, including Sun's and Texaco's, are known to be 93.5 octane or higher, either in selected markets or geographical areas of the East.

The impact of these figures undoubtedly will show up in the next government survey covering the summer of 1983. The samples already have been taken, but the processing and the cross-analysis by the Department of Energy's Bartlesville (Okla.) Energy Technology Center is a time-consuming affair.

The summer '83 report is not likely to be released until sometime next year, probably March. (At least the report will be dated March, but it may not begin to reach out into the industry until April or thereabouts due to slow-moving printing and distribution procedures.)

For the latest report, generally available by early September, 1,330 samples were taken in different parts of the country, reflecting the products of 28 different oil companies, large and small.

All of the samples are coded to mask the identities of the companies involved. The data were prepared by the Bartlesville Energy Center for the American Petroleum Institute.

## Octane Trends: Not Too Much Change

| | Winter 1982-83 | Summer 1982 | Winter 1981-82 | Summer 1981 |
|---|---|---|---|---|
| **Unleaded, 90.0 and above** | | | | |
| Research Method | 96.3 | 96.8 | 96.6 | 96.3 |
| Motor Method | 86.7 | 86.6 | 86.8 | 86.2 |
| R+M÷2 | 91.5 | 91.7 | 91.7 | 91.3 |
| **Unleaded, below 90.0** | | | | |
| Research Method | 91.7 | 91.9 | 91.8 | 91.9 |
| Motor Method | 82.9 | 82.8 | 82.9 | 83.0 |
| R+M÷2 | 87.3 | 87.3 | 87.4 | 87.4 |
| **Leaded, below 93.0** | | | | |
| Research Method | 92.9 | 93.0 | 92.7 | 92.8 |
| Motor Method | 85.2 | 85.0 | 85.1 | 85.1 |
| R+M÷2 | 89.1 | 89.0 | 88.9 | 89.0 |

## District Reports for Last Winter

| | Unleaded Gasoline Above 90 | | | Leaded Gasoline Below 93 | | |
|---|---|---|---|---|---|---|
| | Research Method | Motor Method | R+M ÷ 2 | Research Method | Motor Method | R+M ÷ 2 |
| Northeast | 96.7 | 87.0 | 91.8 | 93.6 | 85.5 | 89.6 |
| Mid-Atlantic Coast | 96.6 | 86.5 | 91.6 | 93.0 | 85.4 | 89.2 |
| Southeast | 96.2 | 86.8 | 91.6 | 92.9 | 85.2 | 89.1 |
| Appalachian | 95.9 | 86.6 | 91.3 | 92.7 | 85.6 | 89.2 |
| Michigan | 95.9 | 87.1 | 91.5 | 92.7 | 85.5 | 89.1 |
| North Illinois | 97.1 | 86.6 | 91.9 | 93.4 | 85.6 | 89.5 |
| Central Mississippi | 95.8 | 87.2 | 91.5 | 93.2 | 85.4 | 89.4 |
| Lower Mississippi | 96.4 | 87.0 | 91.8 | 92.6 | 85.6 | 89.2 |
| North Plains | 96.4 | 87.8 | 92.1 | 91.5 | 84.3 | 87.9 |
| Central Plains | 96.3 | 86.5 | 91.5 | 92.5 | 84.9 | 88.7 |
| South Plains | 96.9 | 86.4 | 91.7 | 93.4 | 85.7 | 89.5 |
| South Texas | 96.3 | 86.7 | 91.5 | 93.5 | 85.7 | 89.6 |
| South Mountain States | 96.6 | 85.8 | 91.2 | 92.0 | 84.6 | 88.3 |
| North Mountain States | 95.6 | 86.7 | 91.2 | 91.8 | 83.3 | 87.6 |
| Pacific Northwest | 95.8 | 87.2 | 91.6 | 93.5 | 85.3 | 89.4 |
| North California | 96.7 | 85.7 | 91.2 | 93.9 | 85.5 | 89.7 |
| South California | 96.2 | 86.2 | 91.2 | 93.6 | 85.5 | 89.6 |
| U.S. Average | | | | | | |
| Winter 1983-84 | 96.3 | 86.7 | 91.5 | 92.9 | 85.2 | 89.1 |
| Minimum Samples | 95.6 | 85.7 | 91.2 | 91.5 | 83.3 | 87.6 |
| Maximum Samples | 97.1 | 87.1 | 92.1 | 93.9 | 85.7 | 89.7 |
| No. of Samples in Survey | — | — | 31.8 | — | — | 52.0 |

**Source: DOE, Bartlesville Energy Technology Center.**

# Erosion Continues in Lubricant Sales

Lube oil and grease sales skidded again in 1982 for the third consecutive year, almost in lock-step with declining gasoline consumption and a decelerating economy.

The sixth annual summary of lube oil sales from the National Petroleum Refiners Assn. states total lubricants—automotive oils, industrial oils and greases—dropped 8.3% in 1982, compared with decreases of 1.8% the year before and 8.6% in 1980. Sales are now down 19.2% from the peak year of 2.5-billion gal. in 1979.

Total sales in 1982 amounted to 2.0-billion gal.

Automotive oils, which include conventional engine oils, transmission and hydraulic fluids, and gear oils, totaled 1.2-billion gal. in 1982—3.1% less than in 1981 but 13.4% less than peak year 1979.

An interesting aspect of the 1982 survey is that automotive oils accounted for 60% of the year's total, versus 57% in the preceding year. The increase came mostly in the consumption of multigrade crank case oils.

NPRA says 101 companies participated in the 1982 survey. Not all companies have taken part each year, but at least 41 have so far. Sixteen others have participated in five out of the six studies.

Copies of the 1983 survey are available from NPRA in Washington at $10 each.

| (Add 000 gal.) | 1982 | 1981 | 1980 | 1979 | 1978 |
|---|---|---|---|---|---|
| Automotive Oil | 1,202,395 | 1,240,040 | 1,265,316 | 1,391,418 | 1,385,184 |
| Industrial Oil | 793,529 | 942,318 | 958,849 | 1,043,524 | 1,102,169 |
| Total Oils | 1,995,924 | 2,182,358 | 2,224,165 | 2,434,942 | 2,387,353 |
| Automotive Grease (a) | 21,107 | 22,347 | 25,533 | 22,427 | — |
| Industrial Grease (a) | 29,947 | 36,040 | 36,573 | 45,160 | — |
| Unclassified Grease (a) | 1,067 | 3,413 | — | — | — |
| Total Greases (a) | 52,122 | 61,800 | 62,106 | 67,587 | — |
| Grand Total Lubricants | 2,048,046 | 2,244,158 | 2,286,271 | 2,502,529 | 2,387,353 |
| By-Products Aromatic Oils | 94,307 | 107,682 | 104,635 | 132,680 | 121,463 |
| Waxes | 185,522 | 204,994 | 216,023 | 247,525 | 482,723 |

(a) Conversion from lbs. to gals. (7.5 lbs = 1 gal.)

### Breakdown for Automotive Oil Sales

| | 1982 | 1981 | 1980 | 1979 | 1978 |
|---|---|---|---|---|---|
| SAE J-183 Engine Oils | | | | | |
| Monograded | 425,450 | 470,099 | 520,522 | 616,026 | 636,246 |
| Multigraded | 530,946 | 506,593 | 482,174 | 484,570 | 454,532 |
| Subtotal | 956,396 | 985,692 | 1,002,696 | 1,100,596 | 1,090,778 |
| Non-SAE J-183 Engine Oils | 20,962 | 23,034 | 24,429 | 28,580 | 32,003 |
| Transmission & Hydraulic Fluids | 180,341 | 181,092 | 189,731 | 207,361 | 217,159 |
| Gear Oils | 44,696 | 50,222 | 48,460 | 54,881 | 45,244 |
| Total | 1,202,395 | 1,240,040 | 1,265,316 | 1,391,418 | 1,385,184 |

### Breakdown for Industrial Lube Sales

| | 1982 | 1981 | 1980 | 1979 | 1978 |
|---|---|---|---|---|---|
| General Industrial Oils | 333,730 | 409,707 | 419,811 | 457,555 | 425,420 |
| Industrial Engine Oils | 133,955 | 151,886 | 157,040 | 146,384 | 123,211 |
| Metal Working Oils | 77,308 | 89,838 | 90,801 | 105,165 | 109,722 |
| Process Oils | 248,536 | 290,887 | 291,197 | 334,420 | 343,766 |
| Total | 793,529 | 942,318 | 958,849 | 1,043,524 | 1,002,169 |

Source: NPRA, 1982 Report on Lubricating Oil Sales, September 1983.

## Indie sues Rasheed for $10.8-million

Southern indie Racetrac Petroleum Co. is seeking $10.8-million in damages stemming from alleged antitrust violations by Vic Rasheed, now executive director of Service Station Dealers Assn. of America, and 11 Maryland officials.

Racetrac, with 140 stations, filed its action in a Baltimore federal court against Rasheed and officials of Prince Georges County, Md., near Washington, D.C. The suit states that Rasheed, then head of the Greater Washington-Maryland Service Station Dealers Assn., blocked Racetrac's efforts to obtain permission to build a service station in Prince Georges County.

The company said that when it completed its surveys and traffic studies, it filed for various exceptions from county officials. It was turned down after Rasheed and the Greater Washington/Maryland association intervened. The county officials were said to have ruled that there was no need for any additional service station in the area.

Rasheed declined to comment on the suit.

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MEMBER PEI

## Jobbers Gain Toehold On Overcharge Refunds In Kansas Case Ruling

**A federal judge in Wichita, Kan., has opened the door for jobbers to negotiate for a share of billions of dollars in crude oil overcharge refunds.**

U.S. District Court Judge Frank Theis in September ruled that the Department of Energy must try to locate "victims" in the $1.2-billion Energy Reserves overcharge case, which involves a dispute between DOE and 21 crude oil producers over regs on low-production "stripper wells."

The judge referred the case to DOE's Office of Hearings and Appeals, ordering the agency to recommend a plan for distributing refunds within a year and to issue a progress report in six months. In turn, the escrow funds were ordered transferred to OHA last month for refund proceedings.

"We are very pleased with the decision," says Phil Chisholm of the National Oil Jobbers Council (NOJC). "In the past, jobbers mainly have concentrated on refined product overcharges, rather than on crude oil. DOE generally has shut jobbers out of crude oil negotiations, but this provides a forum for jobbers to make a case."

Although Chisholm says the ruling represents a "giant first step" toward reclaiming some of the money he believes jobbers have lost in overcharges, he admits the next step—providing proof that jobbers absorbed some of the overcharges—will be no easy task.

NOJC hopes to model its case after the refund formula adopted in the $100-million Amoco refined products decision [NPN—Feb. '83, p28]. In that case, jobbers were "presumed" injured and were not individually required to prove actual damages. To apply this model, however, thousands of jobbers will need to claim damages. Bassman & Mitchell, a Washington law firm representing NOJC, currently is aware of only 1,300 jobbers who claim to be adversely affected.

"We do not have a 'critical mass' yet," says Doug Mitchell, explaining that 12,000 jobber claims were filed in the Amoco case. There would need to be enough cases to convince OHA that it could not consider the cases on an individual basis, he says.

The decision contradicts another district ruling in the $1.6-billion Exxon overcharge case which maintained victims in crude overcharge cases are impossible to identify and that the entire refund should be distributed to state governments.

Judge Theis wrote that "an attempt must be made" to determine if *this* judge's ruling was premature.

The Exxon case was being appealed in October, and attorneys say they are uncertain how it will be affected by the Theis decision.

## Gasoline Yields Rise, But Resid Dips

**American refineries eked out a bit more gasoline and a bit less residual fuel and petrochemical feedstocks per crude barrel in 1982 than they did in recent years.**

Although product yields from an average barrel of crude have not changed significantly over the past four years, gasoline showed the most substantial increase in an American Petroleum Institute tally of average product yields for 16 product categories between 1979 and 1982. In 1982, 46.4% of the average barrel of crude refined in the U.S. went into gasoline production, up 1.6% from 1981.

Yields for resid and petrochemical feedstocks showed the most significant declines. In 1982, refineries produced an average 8.8% resid per barrel, down 1.6% from 1981 and 2.7% from 1979. Average feedstocks yield for 1982 was 3.6% per barrel, declining 1.1% from 1981 and 1.5% from 1980.

In recent years, U.S. refiners have been relying more heavily on high-sulfur, sour imported crude, which requires additional processing and produces less of the lighter oil products.

### Product Yields from Crude Oil in the U.S.*

| Product | 1979 | 1980 | 1981 | 1982# |
|---|---|---|---|---|
| Gasoline | 43.0% | 44.5% | 44.8% | 46.4% |
| Jet Fuel | 6.9 | 7.4 | 7.6 | 8.1 |
| Ethane (incl. Ethylene) | 0.1 | — | 0.1 | — |
| Liquefied Gases | 2.3 | 2.4 | 2.4 | 2.2 |
| Kerosine | 1.3 | 1.0 | 0.9 | 0.9 |
| Distillate Fuel Oil | 21.5 | 19.7 | 20.5 | 21.5 |
| Residual Fuel Oil | 11.5 | 11.7 | 10.4 | 8.8 |
| Petrochemical Feedstocks | 4.7 | 5.1 | 4.7 | 3.6 |
| Special Naphthas | 0.6 | 0.7 | 0.6 | 0.4 |
| Lubricants | 1.3 | 1.3 | 1.3 | 1.2 |
| Wax 0.1 | 0.1 | 0.1 | 0.1 | |
| Coke | 2.6 | 2.7 | 3.1 | 3.4 |
| Asphalt | 3.1 | 2.9 | 2.7 | 2.7 |
| Road Oil | — | 0.1 | — | — |
| Still Gas | 3.8 | 4.0 | 4.3 | 4.4 |
| Miscellaneous | 0.8 | 0.8 | 0.7 | 0.7 |
| Shortage (Processing Gain) | −3.6 | −4.4 | −4.2 | −4.4 |
| Total | 100.0% | 100.0% | 100.0% | 100.0% |

*Other unfinished oils added to crude oil in computing yields.
#Latest year available.
Source: American Petroleum Institute and U.S. Energy Information Administration

## Gulf Unites Refining, Marketing, Chemical Units

**Gulf Oil Products Co. is the new name for all Gulf Oil Corp.'s downstream marketing and manufacturing operations. The latest turn of the wheel in the corporation's on-going streamlining program, the move reflects a merger of Gulf Refining & Marketing Co. and Gulf Chemical Co. into a single downstream entity.**

Charles H. Bowman, 47, president of the old Gulf Refining & Marketing Co., heads up the new subsidiary, which will continue to be based in Houston, Texas. W.C. Roher, former president of the chemical company is senior vice president, responsible for refining, chemicals, supply and transportation.

Chairman James E. Lee, in announcing the consolidation and a series of administrative changes, said they will "allow us to integrate our manufacturing base while continuing our ongoing programs to become a stronger marketing company."

Some of the many changes underway at Gulf were outlined recently by Ron Hall, a former high-ranking Shell executive that Gulf lured over to its team as its senior vice president, marketing.

Lee announced that the corporate management team has been expanded to oversee operations.

The old senior group consisted of Lee, 61; E.B. Walker III, 61, president; M.J. Hill, 63, and H.H. Hammer, both executive vice presidents.

Added to the team were Bowman, 47; James L. Murdy, 45, a newly named executive vice president; J.L. Huitt, 60, president of Gulf Exploration & Production Co.; and H.I. Goodman, 60, president of Gulf Trading Co.

Murdy was the company's chief financial officer prior to his latest promotion. Financial circles regarded his elevation and that of Bowman as the development of a younger tier of executives to succeed the current group, all of whom are nearing retirement age.

# Fuel Oil Briefs

## Carolina heating oil firm expands again

C. R. Mullis Oil & Heating Co., which has acquired no less than five oil companies in the Charlotte, N.C., area in the last 10 to 12 years, has expanded again with a new fully computerized office, warehouse and 80,000 gal. storage facility.

The building was dedicated formally in mid-July with appropriate drum beating to let the townspeople and the industry know about it. It is the first new commercial building in an area targeted for urban redevelopment.

Mullis, founded in 1947, now has 15 employees, two bulk plants, seven tank trucks, two service vans and a delivery truck. It's doing about $7.5-million annually in heating oils and gasoline, with more than a dozen suppliers taking care of its product needs.

## AGA Study: Oil-to-Gas Conversions Still Down

**Conversions to natural gas in the residential space-heating field were down again in 1982 for the third year in a row, and are expected to slump even further before calendar year 1983 is over.**

So says the American Gas Assn. in its 1982 Gas Househeating Survey.

AGA said conversions from other fuels to gas totaled 244,829 housing units in 1982—substantially below the anticipated figure of 303,800 projected in 1981. The 1982 total also was down 46% from 1981's near-record level of 451,612.

In its forecast for 1983, AGA said the gas utilities expected to convert 178,900 homes from other fuels by Dec. 31. This would be the lowest total in five years and far below the booming 500,000-plus level of the mid- and late-'70s.

AGA said the majority of the conversions were from oil to gas.

Despite the slump in conversions, gas continued to be the leading fuel for space-heating, the association said.

Gas, it said, served about 46.6-million homes in 1982—about 56% of the total market. Electricity had 15.9-million homes, or 29% of the market; fuel oil had 14.2-million homes, or 17% of the market; and other fuels had 7.1-million homes, or 8% of the total.

Fuel oil continued to be the leader in the Northeast, with a 48% market share compared to gas' 42%.

| | Households (Add 000) | Market Share |
|---|---|---|
| **Northeast** | 17,900 | 100% |
| Gas | 7,500 | 42 |
| Elec. | 1,300 | 7 |
| Oil | 8,500 | 48 |
| Other | 600 | 3 |
| **N. Central** | 21,600 | 100 |
| Gas | 15,400 | 71 |
| Elec. | 2,200 | 10 |
| Oil | 2,300 | 11 |
| Other | 1,700 | 8 |
| **South** | 27,800 | 100 |
| Gas | 12,800 | 46 |
| Elec. | 8,600 | 31 |
| Oil | 2,800 | 10 |
| Other | 3,600 | 13 |
| **West** | 16,500 | 100 |
| Gas | 10,900 | 66 |
| Elec. | 3,800 | 23 |
| Oil | 600 | 4 |
| Other | 1,200 | 7 |

**AGA notes: Households include single and multifamily; oil includes kerosine; Other includes coal, wood, LPG and solar.** ***M:W***

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## Marketers' Tax Corner

**Irving L. Blackman is the senior tax partner at Blackman, Kallick & Co., Ltd., certified public accountants with offices in Chicago (180 North LaSalle St., Chicago, Ill. 60601), Miami and Houston. Blackman, also an attorney, author and seminar leader, and Daniel J. Fensin (his CPA partner specializing in oil jobbers) have established a hotline to answer the tax questions of *National Petroleum News* readers. Call Fensin at (312) 782-3424.**

# To Incorporate or Not to Incorporate?

**The desire to be one's own boss has been and will continue to be the most infectious disease in the American economic system. It strikes young and old alike. But it's a delightful malady—only entrepreneurs catch it. Once afflicted, the new entrepreneur begins to ask an unending stream of questions.**

To incorporate or not to incorporate? That is the question asked by most new business owners. From our viewpoint, there are two kinds of corporations—a regular corporation or an *S* corporation. Let's identify the single biggest difference between the two: A regular corporation pays tax on its profits, while an *S* corporation does not pay tax and is similar to a partnership, passing its profits or losses through to its stockholders.

Suppose you are about to start or have already started a new business. Even if everything goes well, the usual course of events is that losses precede the welcome arrival of profits. Whether or not the new business is your only business or one of many, this article spells out the tax-smart standard operating procedure for most new business starts.

While the venture is producing red ink results, the most important tax consideration is to get the maximum tax benefit out of the losses being produced. Either a sole proprietorship, partnership or *S* corporation can be used with equal effectiveness to funnel the losses to you. These losses can be used to reduce your other income. If you want to limit your personal liability, an *S* corporation is your best choice.

Finally, the painful incubation period ends—your fledgling business is turning a profit. Although there are some rare exceptions, profits mean doing business as a corporation. It's not only easy to incorporate, but you can incorporate a going business tax free.

If you want to divide the profits with members of your family, an *S* corporation is your answer. In all other cases, however, operating your profitable business as a regular corporation usually produces the best overall tax results. Why? The answer lies in the low corporate tax rates for earnings under $100,000.

For example, a regular corporation only pays $8,250 on its first $50,000 (less than 20%) of profit. Imagine, if you are in a 40% personal tax bracket, the same $50,000 in profits would cost you $20,000 in taxes. Some difference! If you are operating a profitable business, pencil out your potential savings with your accountant.

One warning: This article does not explore all of the rules and exceptions. See your professional tax advisor. Are you about to start a new venture? Send $19 for the special report: "Starting a New Business . . . 102 Tax-Saving Ideas to Make You Rich" to: Blackman, Kallick & Company, Ltd., 180 North LaSalle Street, Chicago, IL 60601.

## Will Your Tax Return Be Audited?

**What are the chances of you or your business being audited? The Commissioner of Internal Revenue recently revealed some interesting data. The schedule below shows the chances of a business return audit in 1982. For example, if your corporation had between $1,000,000 and $10,000,000 in assets, you were just about a one-to-eight shot for hosting an examining agent in 1982.**

| Non-Corporate Businesses (Based on Income) | Percent of Returns Examined |
|---|---|
| Under $25,000 | 1.68% |
| $25,000-$100,000 | 2.97 |
| $100,000 and over | 5.94 |
| **Corporations (Based on Assets)** | |
| Under $100,000 | 2.79% |
| $100,000-$1 Million (M) | 4.49 |
| $1 M-$10 M | 12.59 |
| $10 M-$100 M | 23.86 |
| $100 M and over | 66.73 |

Will the IRS audit your personal return? Many factors, including luck, bear on this question. The higher your income the better your chances. The IRS has released the breakdown on individual non-business tax returns subjected to examination. The following table reveals the percentage of returns examined by income for 1982.

| Individuals—Nonbusiness (Based on total positive income) | Percent of Returns Examined |
|---|---|
| $10,000-$25,000 (with itemized deductions) | 2.45% |
| $10,000-$25,000 (without itemized deductions) | .57 |
| $25,000-$50,000 | 2.90 |
| $50,000 and over | 5.68 |

A computer system helps the IRS nail you if you forget to pick up an item of income. The IRS received about 664-million information documents in 1982, and intends to match about 82% against the corresponding tax returns.

## Selling Off Assets Might Not Help Curb Losses at Year's End

**It often is said that success depends not so much on what you do but rather, how you do it. A common error of a corporate business suffering an operating loss is to "save the year" by selling off an appreciated asset as a tax-free sale (because the loss offsets the profits on the sale).**

But there is a better way. The objective is to carry back the operating losses against ordinary income of prior years and defer the long-term gain on the asset sale until the company has a profitable year. An example shows the way. Suppose your 1983 year-end will show an estimated loss of $100,000 from operations. You can carry back this loss to prior years (1980, 1981 and 1982 in that order), and you will receive a tax refund (as high as $46,000, depending on your tax bracket).

Now, suppose your corporation owns vacant land that will yield a $100,000 capital gains profit. Don't sell the land until your company is back in the black (say, 1984). A sale in 1984 will result in the $100,000 gain receiving the benefits of the favorable capital gains rates (maximum rate of 28%).

One final hint: If you need the cash the land sale will generate, borrow against the land. The loan and repayment are tax-free transactions. If you have a buyer, make the sale, but don't close until 1984.

December 1983 $4.00

## Marketing on Biggest Spending Spree Ever
## Why You Need New Profit Streams
## How Holiday Profits from C-Stores, Tires

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# A YEAR OF DECISIONS

# NATIONAL PETROLEUM NEWS

DECEMBER 1983 VOL. 75 NO. 12

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The outlook for gasoline demand and prices next year is essentially flat, while distillates should rise in both demand and price. The product glut will continue, and marketing ranks will shrink even further. But those who want to compete must spend to modernize their operations.
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Cover photograph by Thomas Olson

The three-year total for motor fuel marketing capital expenditures is forecast to reach a colossal $7.5-billion for real estate, construction and equipment, as majors escalate the battle for market share.
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Holiday Oil, located in the tough Salt Lake City market, has increased overall sales 20% over 1982 by using the dual threat of tires and convenience stores.
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# • TRENDS

## Fewer Profitable Outlets, More 'Breakevens' in '84

**With operating costs continuing to increase in the face of slim profit margins and virtually flat demand, 1984 could be a crucial year for many marketers, various sources believe.**

This includes some large chain independents as well as smaller branded jobbers, they add.

"I think you are very close to a break-even situation on a typical 150,000-gal., multi-pump C-store that's doing $30,000 a month on 'inside' store sales," says one independent. "It's taking awfully close to $20,000 a month to operate such a unit today. Two or three years ago, such a facility was great. Today, it is no barn-burner."

This source points out that two or three years of inflation at 7% or so a year would eat up what profit such a facility now turns out, if margins remain at around 6¢ gal. in a zero-growth market.

A few oil companies were able to report slight improvements in their refining and marketing profits in the third quarter. [See related story on page 28.] Others didn't, however, and the bottom appeared to be dropping out of some wholesale markets in early November. Most companies were pessimistic about the fourth-quarter outlook.

The third-quarter improvement apparently caused one refiner—Asamera Oil—to change its mind about selling out [NPN—Aug. '83, p27]. Upon looking at better margins in Denver (after street prices improved as much as 12¢ gal. during a six-week period the past summer), the company decided it isn't in an "active selling mode" insofar as its refining and marketing facilities are concerned.

Attrition continues, nevertheless, in the industry as a whole, as well as in its employee ranks.

Total employment in wholesale oil marketing slipped 1% in 1982, from 227,586 in 1981 down to 225,394. Employment in retail marketing fell 1.1% from 564,788 in 1981 to 558,462 in 1982. [See page 49 for more details.]

The National Oil Jobbers Council estimated earlier this year that the "universe of independent petroleum marketing companies" decreased by more than one-third between 1980 and the end of 1982, down to 15,160 companies.

Private-brand independents have seen their ranks thin by as much as 25% to 30% within the past four or five years, estimates Michael Kirschner, president of the Society of Independent Gasoline Marketers of America.

Total operable refinery capacity was recently put at 16.9-million b/d by the American Petroleum Institute, down 1.7-million b/d from 1981. API says the number of refineries dipped from 315 in 1981 down to 233 last year.

Extremely thin retail margins and continued flat demand may continue for several years, some marketers predict.

"In gasoline," says a chain independent, "you've got to assume that we've got a demand-driven market and zero growth in gasoline for the next five years, at least. And, you have to assume, also, that the majors are going to continue controlling retail prices and pricing with the independents unless somebody stops them. They are determined to maintain their market share, and they will continue to price with the independents to accomplish this."

One very large chain retailer points out that for years, "we could project a 10% increase in volume." Not now. "We've been very fortunate just to stay even because of increased competition from the majors these past 18 months," he says.

But while some such marketers believe today's marketplace conditions could still lead to legislation aimed at divorcement or divestiture, national jobber groups now appear to be favoring other "solutions." [See page 12.]

Although a few companies did turn in better third-quarter results, fourth-quarter marketing earnings are expected to be down again. In fact, some refiners have noted this pattern in the nearly three years since decontrol: first-quarter earnings down, some improvement in the second and third quarters, and then, down again by year's end.

Heating oil marketers also were singing the blues through September and October. After some earlier talk that diesel and No. 2 fuel oil might be scarce by October, supply was plentiful and prices were falling. In New Jersey, a home heating oil customer paid $1.05 gal. in October. Wholesale prices at the time ranged upward from 83.5¢.

Gasoline prices at wholesale racks were also taking a beating in early November. They had dropped as low as 73.25¢ for leaded regular in Los Angeles, where some street prices were 97.9¢. Pump postings below $1 also were showing up in such markets as Dallas.

This coming winter, some fear, could be worse than the past summer for profits. *—Marvin Reid*

# • MARKETPLACE AT A GLANCE

### AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

| SEPTEMBER | Gasoline (All types) | Leaded Regular | Unleaded Regular | Leaded Premium |
|---|---|---|---|---|
| U.S. City Avg. | $1.257 | $1.189 | $1.274 | $1.405 |
| Regions: | | | | |
| Northeast | 1.267 | 1.202 | 1.271 | NA |
| North Central | 1.272 | 1.220 | 1.297 | NA |
| South | 1.234 | 1.162 | 1.250 | NA |
| West | 1.257 | 1.173 | 1.281 | 1.405 |

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

### STOCKS (Add 000 bbl.)

| | 11/4/83 | 11/5/82 |
|---|---|---|
| Gasoline (total) | 224,781 | 231,753 |
| Gasoline (unleaded*) | 93,639 | [illegible],317 |
| Kerosine ** | 37,2[illegible] | [illegible]35 |
| Distillates | 161,5[illegible] | [illegible]48 |
| Residual | 47,52[illegible] | 61,047 |

**Included in gasoline total.*

***Jet kero only; totals no longer kept by API and DOE.*

*Source: American Petroleum Institute.*

NPN

NATIONAL PETROLEUM NEWS DECEMBER 1983

# Projected Marketing Expenditures Pushing Record Totals Amid Market Share Battles

**Record-breaking numbers of dollars—billions of them—are being poured into new marketing facilities and equipment by the nation's oil companies as they continue to retrench and regroup in the increasingly bitter battle for customers and marketshare.**

McGraw-Hill, Inc's annual capital investment forecast says the companies will spend at least $2.1-billion in 1983, $2.6-billion in 1984, and $2.8-billion in 1985.

That's a three-year total of $7.5-billion, the most the industry has ever targeted for marketing expenditures in such a short period of time.

Add that to the $1.9-billion that was invested in 1982 and the $2.1-billion that was spent in 1981, and the five-year total approaches the $12-billion mark.

Most of the money is going into gasoline marketing, the industry's Cinderella product.

Capital improvement and other marketing expenditures will reach about $2.8-billion in 1985.

It's being used for real estate purchases and for the modernization of gasoline stations or the construction of entirely new pumper-type locations to replace handfuls of smaller 30,000- to 50,000-gal. type outlets.

"Real estate prices, especially for prime locations, are utterly fantastic," said one industry spokesman. "But what we look at is the fact that one good location, moving 100,000 to 200,000 gal. a month, is well worth the cost (relative to) three or four others that are smaller and less efficient. The overhead is lower and the consumer appeal is much brighter because the locations are built that way."

Earlier this year, *NPN* noted that the major oil companies particularly were changing their logo styles and color combinations, emphasizing dealer training and uniforms, and rehabilitating many old locations to make them more appealing for customers. Some majors are known to have five- to six-year, multi-million-dollar programs well underway in the fight for gallonage, in order to retain a good piece of the shrinking volume pie [NPN—April '83, p36].

Another big cost factor for suppliers, jobbers, and retailers is the escalating transition from orthodox operations to electronics and the anticipation that automated teller machines and electronic funds transfers will be coming on in breathtaking fashion over the next two or three years. Most majors already are experimenting with some form of electronic equipment, and Mobil only recently announced that it will be the first major to introduce an electronic funds transfer network nationwide in 1984. [See related story on page 29.]

Another company says that it soon expects to have an electronic system in place so that the headquarters, at the push of a button, will be able to read marketing data from any outlet, and be able to have nationwide summaries by mid-morning each day. This too is scheduled to be in place next year.

McGraw-Hill's economic forecast goes out every fall to hundreds of businesses in all sorts of industries. Where petroleum is concerned, a spokesman for the publishing company said the figures reflected

## Industry Capital Spending: A Five-Year Look

| | 1981 | % Chng. 81 v 80 | 1982 | % Chng. 82 v 81 | 1983 | % Chng. 83 v 82 | 1984 | % Chng. 84 v 83 | 1985 | % Chng. 85 v 84 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Millions of dollars) | | | | | | |
| Marketing | $2,121 | 16.9% | $1,940 | (8.5%) | $2,103 | 8.4% | $2,575 | 22.4% | $2,849 | 10.6% |
| Refining | 4,943 | 48.3 | 5,490 | 11.1 | 3,244 | (40.9) | 3,769 | 16.2 | 4,588 | 21.7 |
| Transportation (a) | 2,842 | 42.0 | 2,316 | (18.5) | 2,411 | 4.1 | 1,070 | (55.6) | 805 | (24.8) |
| Production | 31,233 | 45.8 | 31,635 | (1.0) | 25,917 | (18.5) | 28,235 | 8.9 | 30,844 | 9.2 |
| Petrochemicals | 1,243 | 18.0 | 1,028 | (17.3) | 637 | (38.0) | 542 | (14.9) | 575 | 6.1 |
| Other (b) | 3,853 | 35.2 | 4,273 | 10.9 | 3,275 | (23.4) | 3,036 | (7.3) | 2,920 | (3.8) |
| TOTAL PETROLEUM | $46,185 | 2.1% | $46,113 | — | $37,587 | (18.5) | $39,226 | 4.4 | $42,579 | 8.5 |

(a) Includes oil pipelines but not gas pipelines (b) Includes coal mining.
Source: McGraw-Hill Economics Department, November 1983.

about 76% of the total capital spending by oil in any one year.

"Obviously, the data come largely from the bigger companies," he said. "But then, they're the ones that are spending the most money, aren't they?"

If the McGraw-Hill estimate accounts for only three-fourths of oil's capital spending, then it's possible to speculate that the remaining one-fourth could amount to as much as $2.5-billion in the 1983-85 period. If that is a hypothesis, then marketing's investments during that time span alone would be more in the order of $10-billion, not just the predicted $7.5-billion.

The entire petroleum industry is expected to invest $37.6-billion in 1983, $39.2-billion in 1984, and $42.6-billion in 1985. The industry's peak year of expenditures was 1981, when the investments exceeded $46.2-billion. They declined ever so slightly in 1982 in the face of sloppy markets and prices for gasoline and fuel oil—its principal products. Total investments plummeted to $37.6-billion in 1983—a one year drop of 18.5%. Production took the worst beating—a decline of almost $6-billion, as the world floated on a sea of excess oil. The projected level of $42.6-billion in 1985, while signifying a healthy comeback, is still well below 1981's total of $46.2-billion.

*—J. Richard Shaner*

# Third Qtr. Earnings Improve For Top Global Companies

**The international oil companies fared well in the third quarter of '83, more as a result of improved earnings overseas than what they did on the home front.**

This was particularly true for Exxon, Mobil, Standard of California and Texaco—the four partners in Arabian American Oil Co.—who had been taking a bit of a beating earlier in the year because of the Saudi's unwillingness to lower their benchmark price for crude oil.

Seven oil companies already have topped the billion-dollar-plus status for the first nine months. Texaco is sure to become the eighth company to reach that status sometime this fourth quarter.

Percentagewise, Gulf had a strong third-quarter—76% over the same period of last year.

U.S. Steel Corp. said subsidiary Marathon Oil helped it make a profit in the third quarter versus a loss in the same period of last year. The steel giant said Marathon earned $231-million, after foreign taxes, compared with $185-million in the comparable period of 1982.

Du Pont said its Conoco, Inc. division earnings were mixed. Operating profit for refining, marketing and transportation rose to $74-million from $56-million in third quarter 1982, and profit from exploration and production slipped to $96-million from $111-million at the same time.

### Third-Quarter and Nine-Month Earnings

*(Add $000)*

| Company | 3rd Qtr. 1983 | 3rd Qtr. 1982 | % Change | 9 Mos. 1983 | 9 Mos. 1982 | % Change |
|---|---|---|---|---|---|---|
| Exxon | $1,225.0 | $1,017.0 | 20.5% | $3,360.0 | $2,705.0 | 24.2% |
| Mobil | 404.0 | 284.0 | 42.3 | 1,056.0 | 815.0 | 29.6 |
| Texaco | 331.0 | 303.0 | 9.2 | 977.0 | 975.0 | — |
| Stand. (Ind.) | 584.0 | 559.0 | 4.5 | 1,409.0 | 1,411.0 | — |
| Stand. (Calif.) | 509.0 | 459.0 | 10.9 | 1,187.0 | 952.0 | 24.7 |
| Atl. Richfield | 405.1 | 446.9 | (9.4) | 1,128.8 | 1,242.0 | (9.1) |
| Shell | 449.0 | 442.0 | 1.6 | 1,084 | 1,166.0 | (7.0) |
| Gulf | 276.0 | 159.0 | 73.6 | 681.0 | 674.0 | 1.0 |
| Tenneco | 159.0 | 198.0 | (19.7) | 475.0 | 531.0 | (10.5) |
| Stand. (Ohio) | 435.0 | 487.0 | (10.7) | 1,190.0 | 1,420.0 | (16.2) |
| Phillips | 176.0 | 153.0 | 15.0 | 474.0 | 491.0 | (3.5) |
| Sun | 167.0 | 152.0 | 9.9 | 392.0 | 386.0 | 1.6 |
| Getty | 183.7 | 182.7 | — | 255.5 | 518.9 | (50.8) |
| Union (Calif.) | 180.2 | 212.8 | (15.3) | 447.9 | 578.9 | (22.6) |
| Amer. Hess | 75.1 | 80.1 | (6.2) | 148.3 | 125.0 | 18.6 |
| Ashland (a) | 51.1 | 75.8 | (32.3) | 102.8 | 180.9 | (43.2) |
| Kerr-McGee | 39.7 | 56.8 | (30.1) | 101.3 | 136.2 | (25.6) |
| Dia. Shamrock | 39.7 | 42.3 | (6.1) | 73.9 | 138.9 | (46.8) |
| Murphy | 39.8 | 43.9 | (9.3) | 108.0 | 119.0 | (9.2) |
| Amer. Petrofina | 23.0 | 12.7 | 81.1 | 31.9 | 39.6 | (19.4) |
| Crown Central | 3.6 | 8.4 | (57.1) | (3.0) | 2.4 | — |

(a) Fourth quarter and full year; fiscal ends 9/30.

## Gasohol's 'Premium' Tag Not Enough to Move It, Warns NOJC's Scanlon

**Unless the alcohol fuels industry abandons its "premium price/premium product mindset," jobbers and other marketers will be never become the loyal customers the alcohol industry wants. If and when tax subsidies for alcohol fuels evaporate, they will be followed quickly by independent marketers.**

That's the message delivered to a national alcohol fuels conference in Washington by National Oil Jobbers Council (NOJC) vice president Michael Scanlon. In what he called a "frank" presentation, Scanlon complained that alcohol fuel blends are priced "beyond the reach" of 85% of American motorists. By blending alcohol primarily with premium grade gasoline, he says, the alcohol fuels industry is making it impossible for many marketers to sell its product, even if they want to. "Half of NOJC's members," Scanlon said, "don't sell premium at all."

"It's clear that the price of alcohol fuels is deliberately being set at the premium level," Scanlon said after his presentation in October. "We can see that the price doesn't vary, despite fluctuations in the price of corn." [See related story page 32.]

Scanlon also pointed out that in most cases, those marketers who are selling alcohol fuel blends can remain competitive only because of state and federal tax breaks. States looking for the cash needed to match federal highway funds already are looking over alcohol tax breaks, Scanlon warned, and many of them may evaporate.

Along with complaints over high prices, the NOJC exec urged alcohol producers and marketers to develop a continuing consumer information and education program to counter the adverse publicity that crops up every time there are news reports of contaminated fuel or similar consumer problems. "If the industry wants the loyalty of marketers, it must support them," he told the two-day gathering.

NOJC also urged the alcohol industry to take extra precautions in invoice labeling, noting that marketers can guard against "double blending" only if they know what already is in the product they receive. The labeling problem could become a serious one if the Environmental Protection Agency decides to strictly enforce its gasoline content regulations, which prohibit blending alcohol with gasoline that contains oxygenating additives, Scanlon told the conference.

Much of the Washington conference was devoted to tax issues. Senate Finance Committee Chairman Robert Dole (R-

The amount of the alleged overcharges had not been determined by late October, but was not expected to be a large sum. Even tripled, it's unlikely the award will top $100,000, some sources believed, assuming the jury rules in favor of Bray. Compared with the original claim of $120-million, that's popcorn money, they said.

The fact that the case was turned back to a jury at all, however, was a technical victory for Bray. Chevron's counsel had anticipated complete denial of any damages and dismissal of the Bray suit. Still pending is a Chevron cross suit for $1.5-million the company contends it was owed when Bray went out of business.

Both sides have said that they would appeal Judge Holden's decision. Chevron already has filed an appeal of a limited nature.

Bray's original suit was filed in 1977. It contended that Chevron had forced him to accept a price increase that violated the oil price freeze of the early 1970s, had engaged in fraud and deception and, as a result, he suffered hardships severe enough to lose his business.

A jury heard testimony from July 1982 to March 1983. Then, after 10 days of deliberation, it responded to a series of questions posed by Judge Holden—most of them in favor of Bray.

The charges of fraud were denied. Both sides claimed victory, but it was agreed that the key determination would be a ruling by Judge Holden as to whether Bray was entitled to damages—compensatory or punitive.

Both sides submitted a variety of briefs during the summer months, and Judge Holden's decision came down in mid-October: Yes, Bray is entitled to damages but only for the year 1975-76 and then, no more than three times the alleged overcharges, whatever they turn out to be.

That eliminated considering the winters of 1973-74 and 1974-75 as well as the multi-million dollar claims. **NPN**

## Pennzoil Constructing $1.7-million Lube Plant Near Johnstown, Pa.

**Pennzoil Products Co., Houston, Texas, and two partners are constructing a $1.7-million lube oil blending and packaging plant at Mundy's Corner, near Johnstown, Pa.**

It's expected to be operational in early 1984 and will employ about 25 people.

Co-owners of the plant are James W. Lambing and West Central Service & Transfer Corp. Pennzoil will handle the processing and packaging aspects, while Lambing and the transfer corporation will provide transportation and servicing requirements.

The output is scheduled to be distributed in East Coast markets. **NPN**

# Decline in U.S. Oil Reserves Expected to Continue for '83

**Although it's too early for much more than educated guesses, there's little reason to believe that 1983 will see any reversal in the continuing decline of U.S. crude oil reserves.**

Official government figures released in early October showed that crude reserves dropped to 27.9-billion bbl. at the end of 1982, the lowest level since 1952. [See table.] This was an erosion of 5.3% from 1981's total of 29.4-billion bbl. [NPN—Nov. '83, p11].

Statistics compiled by the Independent Petroleum Assn. of America indicate that during the first half of 1983, the number of rotary rigs in action in the U.S. was down about one-third compared to 1982. The number of well completions and the total footage drilled in the first half of 1983 also were down 8% to 10%.

These cutbacks in exploration in late 1982 and early 1983 reflected the constriction in major companies' earnings in recent years, as well as the overtones of the economic slump that had hampered business and industry generally until the recovery processes began to change things in mid-1983.

Robert R. McCall, executive vice president of Texaco U.S.A., put his finger on the problem in a recent address to the Society of Petroleum Engineers in San Francisco. He said the windfall profit tax and the continued regulation of natural gas are "denying the petroleum industry the necessary cash flow to replace the domestic oil and gas reserves that are now being produced." He went on:

"Excessive and unfair taxes on crude oil, combined with unreasonable and unworkable price controls on gas, severely cramp the industry's ability to carry out expensive exploration and development programs.

"There are certainly at least as many good investment opportunities today as two years ago, but we are unable to take full advantage of them—to the detriment of our industry and the needs of the country."

U.S. crude oil reserves have been eroding almost steadily since 1970—the peak year when Prudhoe Bay's reserves finally were added to the national total to raise it to 39-billion bbl.

The rate of decline slowed somewhat in 1980 and 1981 but resumed in 1982, according to the government's Energy Information Administration. (It now compiles the totals that used to be made available by special committees of American Petroleum Institute and American Gas Assn.)

Natural gas liquids, which are extracted from natural gas production in sort of a laundering process—showed a modest increase in 1982 for the third consecutive year. They now stand at 7.2-billion bbl., the highest level since 1971.

The natural gas liquids can be converted into useful products, just like crude oil. So, they do enhance the total availability of liquid petroleum.

Natural gas reserves declined slightly in 1982 to a total of 201.5-trillion cubic feet.

| | Total Discoveries* | Total Production | Proved Reserves at End of Year | % Change |
|---|---|---|---|---|
| | Crude Oil (millions of bbl.) | | | |
| 1982 | [illegible] | 2,950 | 27,858 | −5.3% |
| 1981 | [illegible] | 2,949 | 29,426 | +1.3 |
| 1980 | [illegible] | 2,975 | [illegible] | — |
| 1979 | [illegible] | [illegible] | [illegible] | −4.9 |
| 1978 | [illegible] | [illegible] | [illegible] | −1.3 |
| | [illegible] | | | |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| | [illegible] | | | |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 1978 | [illegible] | [illegible] | [illegible] | [illegible] |

(*) [illegible]

# 1984

# A YEAR OF DECISIONS

**Don't be surprised if many oil marketers resort to ouiji boards, tarot cards and crystal balls this winter to figure out which way to go—and how to get there—in the coming year.**

The old track records aren't worth a dang anymore as a basis for projections. Given the uncertainty of the times, this makes forecasting hairier than usual, especially in view of all the false prophesies of the past two years.

It isn't hard to remember, for one example, that this time last year the weather experts were predicting the worst winter of the century. Instead, it turned out to be the warmest in three decades.

Be that as it may, the economic and business forecasters are moderately optimistic about 1984, it being an election year and all that. They believe the current upswing will continue past November and well into 1985. A National Conference Board panel, for instance, foresees a growth in gross national product of 5% in 1984 and 4% in 1985.

Not much of that sunshine is expected to fall on the oil marketing industry, however. Some projections are so dour that even a Pollyanna would have a tough time putting on a happy face to look ahead.

But it's not *all* bad, either. It's just that calendar year 1984 does not currently look any better for oil marketers than the year just coming to an end.

In short, the long roller coaster ride driven by the traumatic upheavals and changes of the post-decontrol days is not over yet.

Said one industry economist, if another warm winter takes place and the economy slows down instead of heating up, 1984 will see many jobbers writing new chap-

**By J. Richard Shaner**
**Executive Editor**

ters about their business careers. "Unfortunately," he said waggishly, "for many of them, it will be Chapter 11."

## NPN Forecasts

Here, for the record, are some of *NPN's* annual Look Ahead sightings, gleaned from a variety of forecasts and individual commentaries:

- Supply: Still on the high side, although it's being managed better. Worrisome factors are the continuing disturbances in the Middle East, which could flare out of control at any time and jeopardize the flow of crude oil from that part of the world.
- Demand: Even though gasoline sales were up a bit in the second half of 1983, domestic demand for all products will probably wind up a bit under the 1982 average of 15.3-million b/d. Demand is expected to rise in 1984, however, as business and industrial activity increases, and could average 15.4-million b/d during the 12-month period. But neither gasoline nor space-heating distillates will fare any better than they did in 1983.
- Prices: No great changes are in the wind. Gasoline will rise and fall a few cents a gallon within the traditional seasonal patterns. The government expects the composite price to average $1.237 in 1984, versus $1.231 in 1983. Distillate fuel oil for space heating also will be in the same tight range—perhaps an average of 2¢ gal. better for the year as a whole. (But that's based on next winter, not the one currently underway.)
- Margins: No relief in sight. So long as product prices continue in the range as forecasted above, and there's no hope for improvement. The margin for all three gasoline grades will likely be 6¢ to 10¢ gal.
- Capital Expenditures: The only real bright spot on the horizon. McGraw-Hill's economics department, in its annual fall survey, says oil companies will spend more than $7.5-billion on new marketing facilities and equipment in 1983, 1984 and 1985 in the intensified struggle for marketshare and customers. This is a record-breaking total for oil marketing, the most in its history over so short a period. Total petroleum expenditures are recovering too. [See related story on page 27 and the graph on page 43.]
- Population Trends: Further significant shrinkage in the number of service stations and in the nose count of jobbers relative to totals of 1982 and other years. There was erosion in both categories in 1983, and still more is expected in '84.
- The Washington Scene: It's an election year, so campaigning will probably get more attention in Congress than controversial issues. This will include inaction on legislative amendments to the Petroleum Marketing Practices Act, divorcement/divestiture, credit cards, etc. Windfall taxes, especially in view of the recent Internal Revenue Service ruling against Atlantic Richfield and Alaskan oil production, will stir much controversy. [See page 12.]
- State Legislatures: With the divestiture/divorcement battles shifting from federal to state levels, more local actions are anticipated. Pennsylvania will be a hot spot again, having been blocked by only one committee vote two years in a row [NPN—Nov. '83, p11]. A Supreme Court resolution of the Georgia case being pushed hard by the retailers there and nationally, could take away the jobbers' edge in direct marketing if they win [NPN—Oct. '83, p16].

## Prices & Margins

Barring an unforeseen development, such as a major disruption of crude oil supplies, retail prices and margins are likely to be as depressed in 1984 as they were in 1983.

"The majors are determined to price with the independents to maintain their market share," says one large chain independent. "So long as you have this situation in a demand-driven market and zero growth, margins will be thin."

Rack-to-retail composite margins on all three grades of gasoline dipped to 6¢ gal. or lower in many metropolitan markets in 1983. Some independents see such low returns continuing and spreading to smaller markets where the majors have investment-type units.

The intensely competitive situation probably will lead to more cries from independents and jobbers for some type of divestiture legislation or restrictions on suppliers.

"The potential for some federal legislation is there because the majors are subsidizing their retail operations with crude oil profits," says an independent who has locked horns with them in many markets.

No major, of course, admits that its retail operations are being subsidized. Virtually all insist that marketing, like all other segments, must function as a profit (or loss) center and justify its existence.

Government data indicate the composite price of gasoline averaged $1.213 during the first seven months of 1983. Buoyed by some hot weather support, for a brief period at least, the average for the year was expected to be around $1.231. If this is the way it turns out, then the composite average would be off 3.9% versus 1982, and would be down 11.3% from the peak of $1.388 achieved in the spring of 1981.

A factor that will continue to have a bearing on prices and profits is the changing mix in the three grades. There's more money to be made, of course, in the unleaded grades than there is in leaded regular, which is the benchmark grade.

Unleaded gasolines constituted 55.3% of the gasoline sold in September 1983—the most recent period available when this article was prepared. The growth pattern is such that the average for the year could well be 56%.

That would be 4% above 1982. With a like trajectory over the next 12 months, this could mean that by the end of 1984, six out of every 10 gallons of gasoline sold would be of the unleaded variety.

In the breakout of the two unleadeds, the last data indicated unleaded regular accounted for 42.5% of the unleaded total, and unleaded premium, 11.7% of the unleaded total.

The year 1984 therefore, could well be the year that unleaded regular sales exceed those of leaded regular for the first time. And, unleaded premiums—if the ratio increases materially—could help improve margin positions.

There is a movement toward octane enhancement of the unleaded premiums in the eastern markets as the push for market share intensifies. Some companies currently are selling 93.5 octane, while others have been assayed at much higher levels in routine Department of Energy sampling procedures.

For gasoline jobbers and retailers, the marketplaces in 1984 will be replays of the strife and power plays of 1982 and 1983.

The gasoline "pie" has been shrinking in size for the past several years, and if 1983 winds up as a minor aberrational improvement, it is not expected to continue on the plus side in 1984.

## Supply & Demand

Because of the uncertainties of the economy, the politics of an election year, and the sore spots in the Middle-East and elsewhere, traditional economists were hesitant in the late fall to put themselves on record for 1984.

Generally, however, there was little overall disagreement with the projections made by the government. [See table, page 40.] Give or take a few thousand b/d on a seasonal basis, most found the federal data acceptable.

For gasoline, this calls for an average of 6.6-million b/d in 1983 and roughly the same in 1984. This totals up to 101-billion gal. of gasoline. Since the trend has been on the downside in recent years, it might be best to look at that total with a grain of salt, according to some marketing observers.

Distillate and residual fuel oils are expected to do better in 1984 after their poor performances in 1983 (due mostly to the unexpectedly warm weather of the 1982-83 winter). But the principal beneficiaries of the increase in distillates are not going to be the home and apartment complex markets. They'll be the transportation and commercial markets using more diesel fuel for vehicles and more power for the accelerating economy.

# What's Ahead for Prices and Supplies—'83-'84 Forecast

| | Annual Averages | | | Quarterly Averages | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1983 | | | | 1984 | | | |
| | Actual | Projections | | Actual | | Projections | | | | | |
| **Retail Prices (per gal.)** | 1982 | 1983 | 1984 | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q |
| **Motor Gasoline*** | $1.281 | $1.231 | $1.237 | $1.173 | $1.234 | $1.268 | $1.247 | $1.256 | $1.255 | $1.235 | $1.202 |
| **Distillate Fuel Oil** | 1.186 | 1.068 | 1.084 | 1.103 | 1.040 | 1.058 | 1.072 | 1.069 | 1.076 | 1.093 | 1.098 |

***Average Prices for All Grades**

| **Products Supplied (*million b/d*)** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Motor Gasoline** | 6.54 | 6.59 | 6.59 | 6.29 | 6.68 | 6.78 | 6.61 | 6.34 | 6.66 | 6.77 | 6.59 |
| **Distillate Fuel Oil** | 2.67 | 2.62 | 2.89 | 2.83 | 2.52 | 2.10 | 3.01 | 3.39 | 2.59 | 2.33 | 3.24 |
| **Residual Fuel Oil** | 1.72 | 1.49 | 1.69 | 1.57 | 1.33 | 1.38 | 1.67 | 1.84 | 1.56 | 1.54 | 1.80 |
| **Others** | 4.37 | 4.48 | 4.78 | 4.32 | 4.23 | 4.63 | 4.74 | 4.69 | 4.54 | 4.87 | 5.02 |
| **Total** | 15.30 | 15.18 | 15.95 | 15.02 | 14.77 | 14.89 | 16.03 | 16.26 | 15.36 | 15.52 | 16.65 |

***Department of Energy, Short-Term Energy Outlook, August 1983. DOE says these projections assume imported crude oil costs of $29 bbl., and slow but steady GNP growth for last half of 1983 and all of 1984.***

A recent report by the American Petroleum Institute, for example, shows that the transportation cut of distillates has grown from 40% in 1978 to 60% in 1983, while the space-heating share has decreased from 42% to 29%.

Diesel fuel for light trucks and cars was expected to account for about 10% of the total on-highway diesel demand in 1983, compared to about 2% in 1979, the study indicates.

The home-heating marketing has been contracting too, like the gasoline market. A government study shows that the number of residential users of distillates declined from 16.9-million in 1979 to 11.3-million in 1982—a drop of 33%.

This has placed unusual "survivor" pressures on heating oil jobbers. Noteworthy is a National Oil Jobbers Council profile last spring that indicated more fuel oil jobbers vanished from the scene via mergers, acquisitions, retirements and liquidations than gasoline jobbers.

Another NOJC study, published only last month, shows that the average fuel oil jobber is distributing 3.2-million gal. of distillates to residential, commercial and industrial customers.

A note of optimism in the study: six out of 10 heating oil jobbers say they are still selling oil heat equipment and 70% of them report that their sales are increasing.

The fuel oil segment knows it has a tough job on its hands, and began a "fight back" campaign late last summer with a revival of its oil heat promotional conferences under NOJC auspices [NPN—Oct. '83, p44]. There seemed to be an increase in local oil heat promotional programs this winter.

## Jobber Trends

According to NOJC's extensive marketer profile, in the two years of 1981 and 1982, acquisitions, mergers, financial liquidations and retirements of companies had reduced the jobber population from 18,139 to 11,369—an almost unbelievable decrease of one-third.

It was believed that this decline in population continued in 1983 but at a much slower rate, and that the shrinkage would go on in 1984, mostly governed by the cost of borrowed money for investment purposes and by the profitability of borderline jobberships.

Mike Scanlon, NOJC policy vice president, who directed the survey, said the need to attract higher volumes unquestionably was behind many of the mergers and acquisitions.

"Don't forget that most of the decrease came in the two years following decontrol of gasoline," he said.

"The jobbers who have survived are leaner and meaner and better able to do business much more efficiently. For many of them, they are operating on margins far below what they would have thought possible as recently as four to five years ago."

He expressed belief that "pretty soon, the post-decontrol shakeout would come to an end. Then, the new industry would be better situated and more capable of handling the changing market conditions."

## Service Station Status

Government figures will not be available until late January or early February, but there seems to be no doubt that the service station population slump will continue in 1984 for the 12th consecutive year.

Some sources think the bloodletting in 1983 might have been more severe than had been anticipated at the beginning of the year, due primarily to the ruggedness of market conditions, tight margins and declining consumption.

As noted in the 1983 *NPN Factbook*, the service station population had been expected to be slightly under 140,000 by Dec. 31. These service stations are defined by the U.S. Census Bureau as stations which derive 50% or more of their income from the sale of gasoline and oil products. Not counted, therefore, are the thousands of convenience store and other non-traditional outlets.

With street competition for volume no easier in 1984 than it was in 1983, it is reasonable to project that the number of service stations will decline another 3.5% to 4% in 1984, which is what happened between 1983 and 1982. (The peak population year was 1972 when the U.S. Census Bureau count was 226,000.)

The *Lundberg Letter*, in one of its August issues, estimated the current service station "universe" at 210,875 units [NPN—Nov. '83, p30]. Industry sources consider this a reasonable figure inasmuch as it includes C-stores and all other outlets where motorists can buy gasoline.

Thus, the industry should wind down to a total population of a shade more than 200,000 outlets at the end of next year.

The U.S. Census Bureau took its quinquennial nose count in 1982, sending out tens of thousands of questionnaires to retail businesses all over the country. The first bushel-basket totals for the U.S. on an industry-wide basis are expected sometime this month. Meanwhile, the state-by-state reports, which really contain the details on gasoline and fuel oil marketing that the industry is most interested in, will be published in dribs and drabs throughout 1984.

It'll be this time next year before the picture is complete.

## Equipment Outlook

Compounding the cash flow problem for many jobbers and retailers will be the increasing experimentation with electronic credit cards and systems. A lot depends on consumer acceptance of the systems at the pump and jobber tolerance at the rack where he pulls product.

At the wholesale level, jobbers could find themselves in a bind should the major oil companies opt for electronic funds transfer (EFT) at the rack, eliminating "float" time associated with present supplier credit systems. The problem would be minimized for marketers if their retail customers quickly adapt to EFT systems at the pump.

[Next month, *NPN* will feature a special report on the proliferation of fund transfer systems.]

With shrinking margins, jobbers are welcoming the new equipment at the retail level. Systems being tested throughout 1983 could yield next year the proven systems needed for adequate cash flow.

Automatic Teller Machines (ATMs), EFTs, point-of-sale terminals and electronic pumps could become a fixture in some market areas by the end of 1984.

Next year also promises to bring increased state legislation on stage II vapor recovery, prompting nozzle manufacturers to step up research on compatible equipment. More and more marketers will be fitting pumps with such equipment in an attempt to get the jump on lawmakers.

Tank manufacturers could also be busy in 1984, as tanks installed decades ago continue to decay. Stronger construction for fiberglass tanks and more durable coatings for steel tanks are in store.

The big winner in the tank leak problem will be the companies marketing leak detection equipment. Equipment now available is designed to detect leaks long before they become serious. There are roughly 10 large manufacturers of the detectors today and many others are expected to come along.

## The Washington Scene

If Congress and the White House can be persuaded to take time out from heavy election-year campaigning, 1984 holds both promise and uncertainty for oil marketing. There are enough important issues to keep lawmakers and regulators busy throughout the year.

At the top of the list of congressional issues is the fate of the package of legislative proposals pushed by marketing groups earlier this year to offset some of the problems stemming from price and allocation decontrol. After a lot of fanfare early in 1983, the package has been put on the back burner for the most part.

NOJC has endorsed the underlying concept of the package—a series of amendments to the Petroleum Marketing Practices Act (PMPA) and adjustments to other laws designed to give marketers more power to negotiate with large suppliers. [See story page 12.]

The package was presented as an alternative to divorcement/divestiture, but most congressional observers say it is unlikely that the proposals will get much attention in 1984, even though less radical than a divorcement approach.

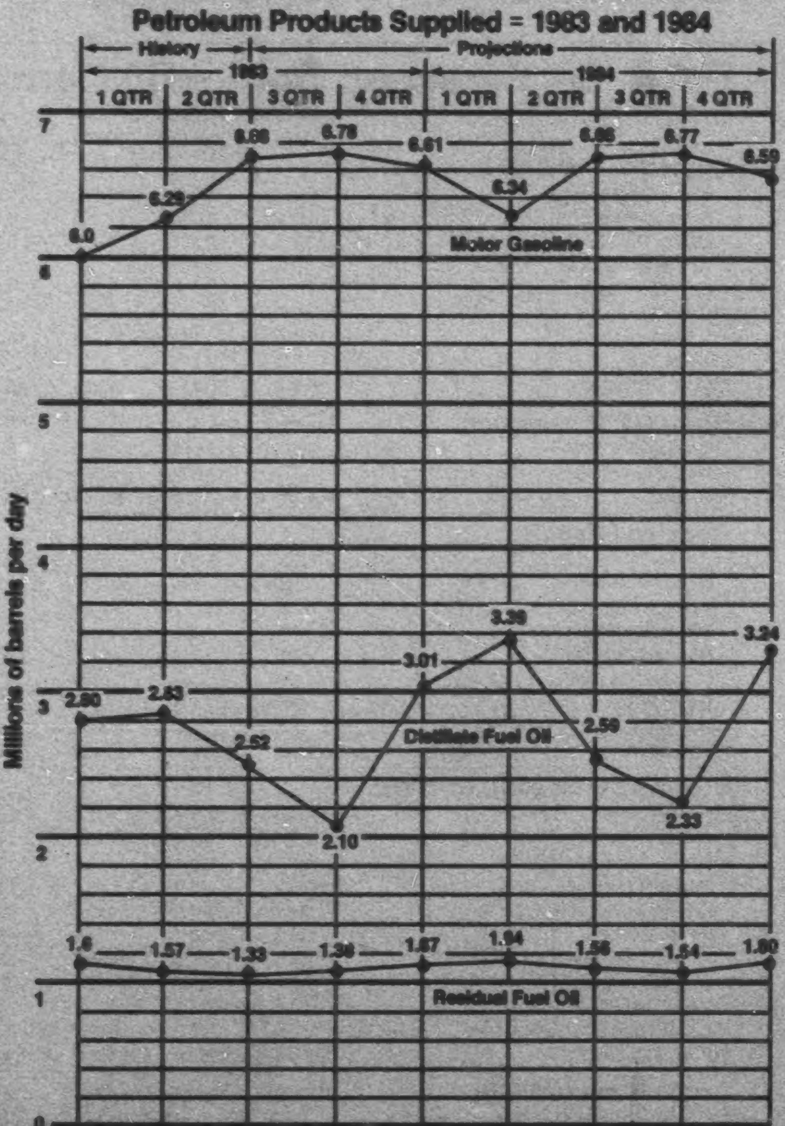
One subject Congress may take action on next year is the controversy surrounding credit card surcharges and cash discounts. NOJC and API worked most of the summer on a joint credit-cost proposal, and by early fall had pretty well agreed on the outlines for a proposal [NPN—Nov. '83, p15]. The NOJC-API plan would allow marketers to pass along the full cost of credit card processing to customers who use them.

The credit card proposal was still under wraps in early November, so the exact mechanism NOJC and API have devised for handling credit card costs is still something of a mystery. Both groups are moving slowly and cautiously, trying to line up support for the plan before it is widely publicized. Capitol Hill staffers say the fact that API and NOJC have already ironed out their differences will help. But if the credit surcharge proposal can clear Congress at all, it probably won't do so until late next year.

Three topics probably will generate the most noise on Capitol Hill in 1984.

Foremost is the ongoing controversy over the windfall profits taxes paid by the oil companies producing crude from Alaska's North Slope, particularly Atlantic Richfield. A preliminary General Accounting Office report said Uncle Sam has missed out on $500-million to $800-million in tax revenues because some Alaskan producers have underpaid the windfall tax—a charge Arco and others have forcefully denied. [See story page 12.]

In October, the Internal Revenue Service clarified its windfall tax rules for North Slope oil, but it's unlikely the IRS clarifi-


**Petroleum Products Supplied = 1983 and 1984**

Graph by NPN based on Department of Energy Short-Term Energy Outlook, August 1983.

cation will satisfy Congress, especially with the prospect of $800-million in tax revenues at stake and huge federal deficits looming.

Basically, however, the ruling held that Arco has underpaid its Alaskan taxes, a point many marketers have been contending for months. They said Arco has been able to undercut markets as a result.

Congress also is likely to spend some time next year deciding what to do with the millions of dollars the government has collected and will collect as a result of the cases brought by the Energy Department under the old price and allocation controls. Recent court decisions have opened the way for at least some of the settlement money to find its way into the hands of jobbers and retail dealers, but state and local governments—who have considerable lobbying power and want a much bigger slice of the refund pie—no doubt will take their case to Congress.

Another safe bet: There will be renewed talk about the proper course for the government to take regarding a future shortage of crude oil supplies. A recent international energy group study suggesting the Reagan administration's hands-off policy would result in soaring oil prices and severe allocation problems has rekindled debate in Congress on the subject [NPN—Nov. '83, p37]. In late October, a Senate energy committee held hearings on a bill endorsing the administration's free market approach, but the measure drew fire from several marketer groups and appeared headed for trouble. A Senate vote is likely early in 1984, but House sources say the bill probably will be ignored there.

Other legislative items that bear watching are mainly tax issues. In addition to several proposals to modify last April's hike in the gasoline excise tax, Congress will be looking at the income tax structure with an eye to increasing revenues. The huge federal deficits will attract vocal, partisan politicking in the presidential election campaign. And, should Congress be forced to stay in session past the November election (a reasonable prospect), tax legislation may be high on a lame duck session's agenda.

On the regulatory side, forecasters say 1984 will be a quiet year. The one notable exception: the Environmental Protection Agency, which still is contending with several issues of concern to marketers, including stage II vapor recovery, benzene regulations and hazardous waste issues.

In late October, Congress was on the verge of passing legislation that will force EPA to apply its hazardous waste rules to so-called "small generators," those which create 100 kilograms (about 22 lbs.) of waste material per year [NPN—Aug. '83, p33]. Items on the hazardous waste list now include many of the sol-

## IPAA '84 Forecast: Domestic Demand to Rise 2.2%

*(000 b/d except closing stocks)*

| | 1st Q | 2nd Q | 3rd Q | 4th Q | Est '84 | Est. '83 | % Chng. |
|---|---|---|---|---|---|---|---|
| **Domestic Product Demand** | | | | | | | |
| Motor Gasoline | 6,284 | 6,711 | 6,730 | 6,522 | 6,563 | 6,579 | (0.2%) |
| Aviation Fuels | 1,060 | 1,078 | 1,106 | 1,080 | 1,081 | 1,061 | 1.8% |
| Middle Distillates | 3,313 | 2,201 | 2,537 | 3,068 | 2,903 | 2,780 | 4.4 |
| Residual Fuel Oil | 1,696 | 1,413 | 1,408 | 1,611 | 1,531 | 1,460 | 4.9 |
| Liquified Gases | 1,712 | 1,281 | 1,320 | 1,619 | 1,482 | 1,425 | 4.0 |
| Other Products | 1,640 | 1,946 | 2,155 | 1,894 | 1,911 | 1,830 | 4.4 |
| Total | 15,705 | 15,130 | 15,256 | 15,794 | 15,471 | 15,135 | 2.2 |
| Exports | 753 | 721 | 719 | 735 | 731 | 786 | (7.0) |
| TOTAL DEMAND | 16,458 | 15,851 | 15,925 | 16,529 | 16,202 | 15,921 | 1.8 |
| **Domestic Production** | | | | | | | |
| Crude Oil | 8,638 | 8,658 | 8,640 | 8,624 | 8,640 | 8,672 | — |
| Nat'l Gas Liquids | 1,573 | 1,506 | 1,510 | 1,558 | 1,537 | 1,541 | — |
| Total | 10,211 | 10,164 | 10,150 | 10,182 | 10,177 | 10,213 | — |
| **Required Imports** | | | | | | | |
| Crude Oil | 3,277 | 3,588 | 3,912 | 3,898 | 3,670 | 3,206 | 14.5 |
| Motor Gasoline | 180 | 223 | 216 | 194 | 203 | 236 | (14.0) |
| Aviation Fuels | 26 | 27 | 31 | 31 | 29 | 28 | 3.6 |
| Middle Distillates | 146 | 136 | 172 | 189 | 161 | 156 | 3.2 |
| Residual Fuel Oil | 833 | 716 | 711 | 815 | 769 | 726 | 5.9 |
| Liquified Gases | 244 | 181 | 189 | 251 | 216 | 205 | 5.14 |
| Other Products | 246 | 313 | 288 | 279 | 281 | 297 | (5.4) |
| Other Supply | 718 | 566 | 695 | 636 | 655 | 709 | (7.6) |
| TOTAL SUPPLY | 15,861 | 15,914 | 16,364 | 16,475 | 16,161 | 15,776 | 2.4 |
| **Closing Stock (000,000 bbl.)** | | | | | | | |
| Motor Gasoline | 230.6 | 222.6 | 222.7 | 227.6 | 227.6 | 231.2 | (1.6) |
| Aviation Fuels | 44.7 | 44.6 | 45.2 | 45.0 | 45.0 | 43.4 | 3.7 |
| Middle Distillates | 120.0 | 124.8 | 158.8 | 163.3 | 163.3 | 168.6 | (3.1) |
| Residual Fuel Oil | 44.2 | 49.2 | 46.2 | 46.7 | 46.7 | 50.6 | (7.7) |
| Liquified Gases | 89.2 | 104.6 | 115.4 | 102.7 | 102.7 | 107.6 | (4.6) |
| Other Products | 55.8 | 56.1 | 47.8 | 50.3 | 50.3 | 48.6 | 3.5 |
| Total Products | 584.5 | 601.9 | 636.1 | 635.6 | 635.6 | 650.0 | (2.2) |
| Unfinished Oils | 112.0 | 104.3 | 111.2 | 106.6 | 106.6 | 107.9 | (1.2) |
| Nat'l Gas Liquids | 14.6 | 14.7 | 14.6 | 14.5 | 14.5 | 13.9 | 4.3 |
| Crude Oil | 352.5 | 348.5 | 343.3 | 343.6 | 343.6 | 343.7 | — |
| TOTAL ALL OILS | 1,063.6 | 1,069.4 | 1,105.2 | 1,100.3 | 1,100.3 | 1,115.5 | (1.4) |
| **Crude Runs to Stills** | 11,739 | 12,046 | 12,466 | 12,312 | 12,142 | 11,808 | 2.5 |

Source: Independent Petroleum Assn. of America, Supply and Demand Committee, November 1983 vents, paints and gasoline additives routinely handled by marketers. Some time next year, EPA also will have to decide whether to include waste motor oil in its definition of hazardous waste.

### TBA Outlook

Pinning their hopes mostly on a continuing upswing in the nation's economy, TBA experts are anticipating better times in 1984—not the old-fashioned, bell-ringing type, but materially better than the year now coming to a close.

"I personally am on the optimistic side," says Robert L. Myrick, TBA manager for Shell and newly elected chairman of the International Oil Industry TBA Group. [NPN—Nov. '83, p12].

"As the economy brightens up, so should we in TBA. It should be a good year for our aftermarket activities. And, one thing to remember is that as the service station population continues to go down, the ones that remain can't help but do better. There'll just be fewer of them to handle more business."

The same is true for oil jobbers. Some have gotten out, but the others are doing better than ever, according to an extensive review by *NPN* in October of this year [NPN—Oct. '83, p36].

Another study indicates that some jobbers are doing better than $500,000 a year in TBA, while almost two out of 10 are doing about $200,000 a year. On the assumption that the economy continues to improve, the TBA people said these totals also would rise in 1984.

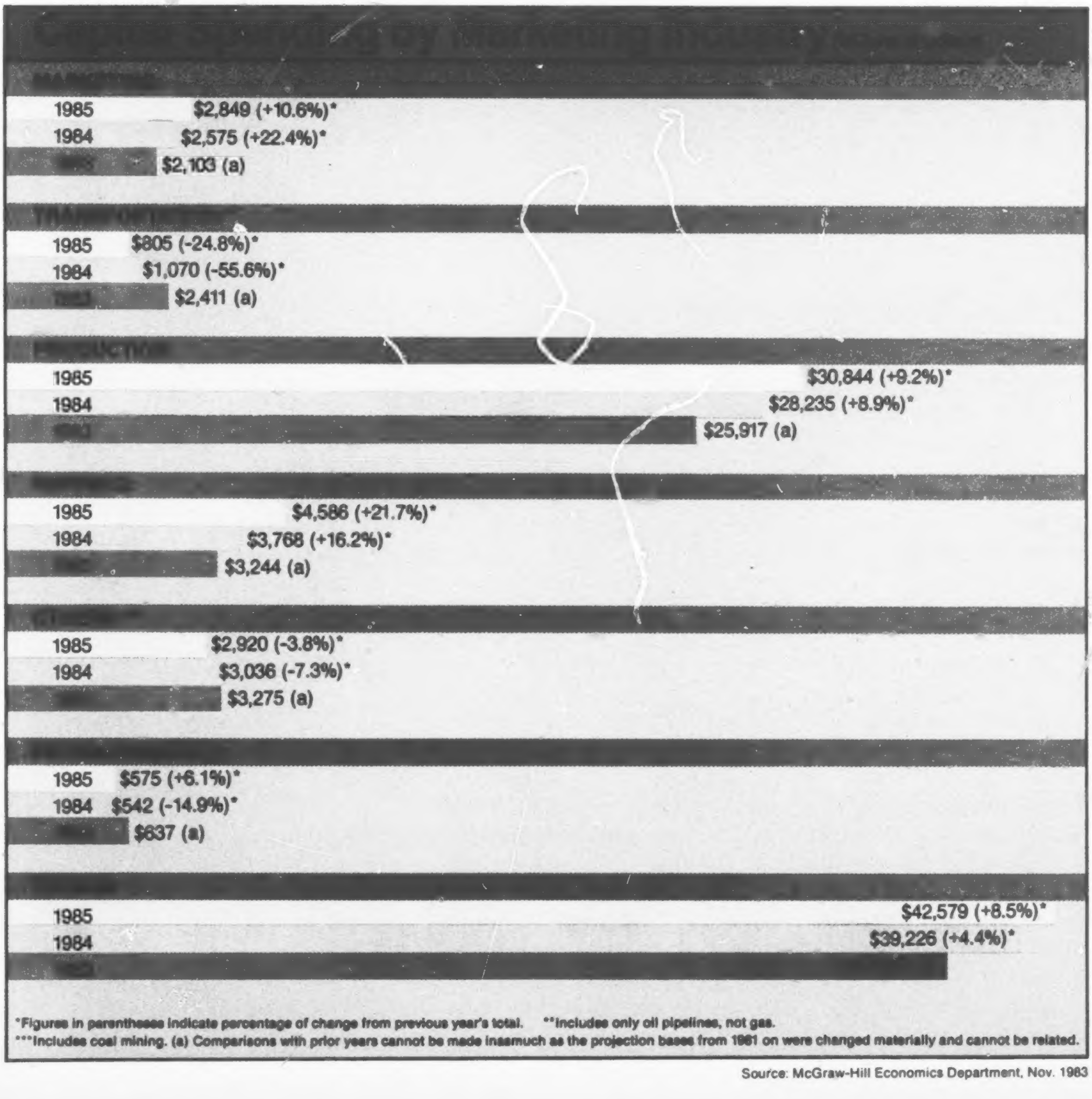
At the TBA Group meeting in Boston in early October, one panel of experts generally agreed that while the outlook for 1984 isn't all sunshine and roses, it really isn't negative either.

Special note was made that as the electronic sophistication of car engines increases, so will the pressures on do-it-yourselfers particularly to return their vehicles to professionals in service station repair shops and elsewhere for their maintenance.

A battery specialist also pointed out that the increasing electronic involvement and requirement for more power will hasten the day when every new car will need two batteries—one for start-up and the other for reserve use. This can be as close as three years from now, he said.

There also were suggestions that service stations must rebuild their images as complete and competitively priced sources of aftermarket equipment and supplies. "The retail industry just has to be more aggressive, especially on the driveway," said one equipment man.

Aggressive. That's a notion that ought to stick in the mind of a marketer of TBA, gasoline or fuel oil in the year to come. In light of anticipated market conditions, he will need to be all of that. **NPN**



*Figures in parentheses indicate percentage of change from previous year's total. **Includes only oil pipelines, not gas.
***Includes coal mining. (a) Comparisons with prior years cannot be made inasmuch as the projection bases from 1981 on were changed materially and cannot be related.

Source: McGraw-Hill Economics Department, Nov. 1983

# Marketer Count Drops a Little Bit, But Overall Employment Inches Up

**Total employment in wholesale and retail oil marketing declined in 1982, as might be expected. But, strange as it may seem, more than half of the states actually registered increases in one or both segments.**

The statistics were compiled by the Independent Petroleum Assn. of America from government business reports, and were published in its annual issue of "The Oil Producing Industry in Your State." The employment table is only one of the many in the publication.

Total employment in wholesale marketing slipped 1% in 1982, from 227,586 the year before to 225,394. Similarly, employment in retail marketing fell 1.1% from 564,788 in 1981 to 558,462 in 1982, according to IPAA data.

Total employment in the entire petroleum industry—exploration, production, transportation, refining and marketing—increased a mere 0.9% in 1982. Nevertheless, it denotes a plus sign at a time when the industry generally had been in overall retrenchment.

The marketing decreases are not the least bit surprising in view of the sloppy marketplaces in 1982, intensive competitive pressures, business failures, mergers and buyouts.

What might be considered a bit unusual is the fact that the declines in both segments of marketing were actually so moderate. The National Oil Jobbers Council reported earlier this year that the jobber population had declined 10% to 15% in 1982, and government data confirmed that the service station population had dropped by 6,500 outlets during the same year [NPN—Sept. '83, p12].

In 1982, five states registered increases in employment in both the wholesale and retail segments. They were Alaska, Hawaii, Missouri, New Jersey and Pennsylvania. [See table.]

In addition, 12 others experienced employment growth in wholesale marketing, and 10 more states, plus the District of Columbia, showed increases in retail operations.

Those with wholesale increases—besides the dual states—were Alabama, Arkansas, Connecticut, Delaware, Illinois, Indiana, Kentucky, Louisiana, Mississippi, Nevada, Washington and West Virginia.

Those with retail increases were Georgia, Idaho, Iowa, Kansas, Maine, Massachusetts, Michigan, New York, Rhode Island, Vermont and Washington, D.C.

—*J. Richard Shaner*

| | Wholesale Petroleum & Petroleum Prods. | | Retail Gasoline Service Stations | | Total Industry(*) All Segments | |
|---|---|---|---|---|---|---|
| | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 |
| **Ala.** | 4,396 | 4,349 | 7,257 | 7,428 | 17,211 | 17,059 |
| **Alaska** | 397 | 307 | 1,122 | 835 | 10,986 | 8,467 |
| **Ariz.** | 1,478 | 1,576 | 7,195 | 7,330 | 10,082 | 10,231 |
| **Ark.** | 2,597 | 2,387 | 4,300 | 4,557 | 14,710 | 14,408 |
| **Calif.** | 15,792 | 16,459 | 59,447 | 61,405 | 156.252 | 153,658 |
| **Colo.** | 3,253 | 3,327 | 8,970 | 9,389 | 44,875 | 40,957 |
| **Conn.** | 2,910 | 2,670 | 8,920 | 8,940 | 13,830 | 13,280 |
| **Del.** | 509 | 499 | 1,427 | 1,491 | 3,409 | 3,430 |
| **Fla.** | 7,086 | 7,399 | 28,271 | 26,897 | 39,075 | 37,520 |
| **Ga.** | 6,091 | 6,393 | 14,764 | 14,260 | 25,242 | 25,120 |
| **Hawaii** | 476 | 469 | 3,402 | 3,307 | 4,645 | 4,600 |
| **Idaho** | 1,542 | 1,643 | 2,076 | 1,984 | 4,317 | 4,456 |
| **Ill.** | 12,000 | 10,500 | 23,000 | 27,200 | 60,950 | 63,450 |
| **Ind.** | 4,301 | 4,282 | 14,584 | 15,625 | 28,181 | 28,181 |
| **Iowa** | 2,951 | 3,621 | 11,139 | 10,759 | 15,522 | 15,848 |
| **Kan.** | 2,667 | 2,681 | 7,364 | 6,922 | 38,070 | 38,915 |
| **Ky.** | 3,114 | 3,081 | 9,096 | 9,379 | 22,573 | 22,738 |
| **La.** | 6,700 | 6,588 | 8,600 | 9,438 | 131,200 | 134,770 |
| **Maine** | 1,246 | 1,300 | 2,461 | 2,300 | 3,727 | 3,600 |
| **Md.** | 3,346 | 3,532 | 12,540 | 12,960 | 16,119 | 18,207 |
| **Mass.** | 3,700 | 3,712 | 13,960 | 13,614 | 25,235 | 22,713 |
| **Mich.** | 5,200 | 6,496 | 20,400 | 20,170 | 41,100 | 42,605 |
| **Minn.** | 2,827 | 2,877 | 14,552 | 15,067 | 21,366 | 22,229 |
| **Miss.** | 3,383 | 3,171 | 4,624 | 4,783 | 23,026 | 23,532 |
| **Mo.** | 7,368 | 7,100 | 13,976 | 13,270 | 29,170 | 26,200 |
| **Mont.** | 1,776 | 1,760 | 2,291 | 2,596 | 10,823 | 12,495 |
| **Neb.** | 1,717 | 1,774 | 6,008 | 6,125 | 12,849 | 13,034 |
| **Nev.** | 554 | 552 | 3,342 | 3,599 | 5,095 | 5,506 |
| **N.H.** | 552 | 666 | 2,411 | 2,464 | 3,284 | 3,453 |
| **N.J.** | 4,755 | 4,715 | 18,659 | 18,258 | 35,672 | 35,506 |
| **N.M.** | 1,863 | 1,846 | 4,003 | 4,149 | 26,520 | 27,296 |
| **N.Y.** | 13,755 | 14,096 | 28,645 | 27,830 | 63,513 | 62,757 |
| **N.C.** | 6,979 | 7,166 | 9,659 | 10,243 | 19,434 | 20,192 |
| **N.D.** | 2,438 | 2,349 | 2,164 | 2,210 | 13,153 | 14,255 |
| **Ohio** | 6,436 | 6,550 | 28,622 | 25,044 | 62,670 | 63,661 |
| **Okla.** | 7,617 | 7,900 | 6,608 | 5,200 | 133,254 | 121,990 |
| **Ore.** | 2,178 | 2,401 | 7,395 | 7,880 | 11,162 | 11,939 |
| **Pa.** | 11,300 | 11,040 | 27,400 | 28,079 | 68,400 | 68,781 |
| **R.I.** | 601 | 668 | 2,262 | 2,097 | 3,854 | 3,707 |
| **S.C.** | 3,528 | 3,743 | 6,449 | 6,543 | 10,601 | 10,867 |
| **S.D.** | 1,468 | 1,480 | 2,620 | 2,647 | 4,451 | 4.369 |
| **Tenn.** | 4,403 | 4,498 | 11,688 | 12,251 | 19,250 | 20,038 |
| **Texas** | 26,629 | 26,724 | 35,933 | 36,279 | 433,170 | 421,622 |
| **Utah** | 1,970 | 2,057 | 4,129 | 4,319 | 15,441 | 16,108 |
| **Vt.** | 320 | 351 | 1,685 | 1,676 | 2,137 | 2,169 |
| **Va.** | 7,600 | 7,700 | 13,900 | 14,100 | 24,700 | 24,900 |
| **Wash.** | 3,146 | 2,99[illegible] | 9,188 | 9,397 | 15,820 | 15,778 |
| **W. Va.** | 2,062 | 2,05[illegible] | 3,853 | 4,170 | 18,272 | 14,905 |
| **Wisc.** | 4,928 | 4,547 | 12,032 | 14,324 | 20,349 | 22,172 |
| **Wyo.** | 1,152 | 1,162 | 2,990 | 2,991 | 28,245 | 29,303 |
| **Dist. of Col.** | 329 | 369 | 1,078 | 1,047 | 2,313 | 2,326 |
| **Total U.S.** | 225,394 | 227,586 | 558,462 | 564,788 | 1,865,305 | 1,849,198 |

*Total includes marketing, refining, exploration, production and refining.
Source: Independent Petroleum Assn. of America, "The Oil Industry in Your State," 1983 and 1982 editions.

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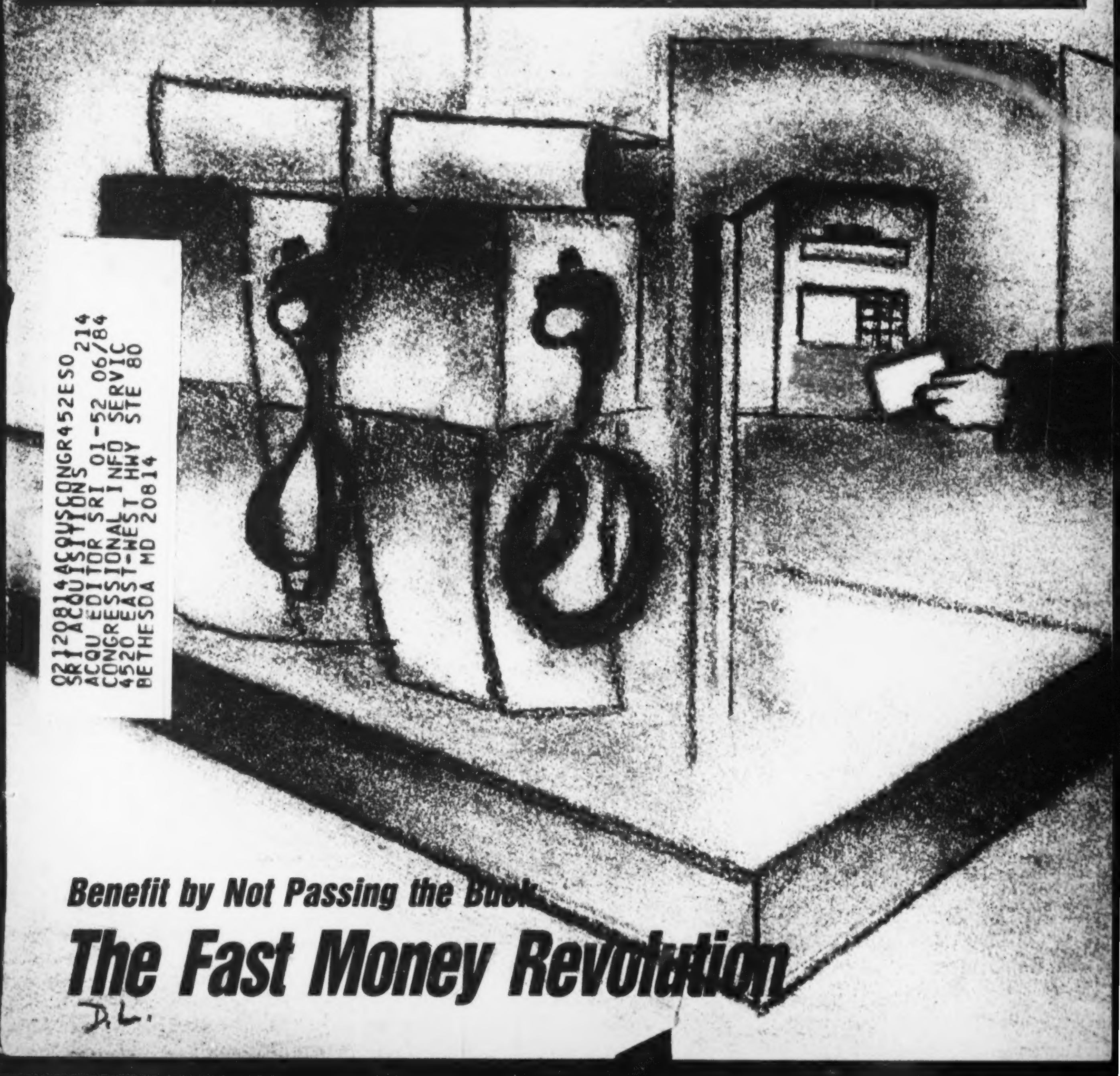
## How C-Stores Pay Off for Midwest Jobber
## What Gulf/Mesa Fight Means to Downstream
## Equipment Tests Bode Well for Fuel Oil

# NPN

**National Petroleum News**

MARKETING MANAGEMENT • OPERATIONS • FUEL OIL • TBA/AFTERMARKET



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**Benefit by Not Passing the Buck**

# The Fast Money Revolution

D.L.

# NATIONAL PETROLEUM NEWS

JANUARY 1984
VOL. 76 NO. 1

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Petroleum marketing has entered an automation revolution which has been brewing for some time. And, with cost-cutting advantages, card acceptors are attracting the major players, as well as the renegade independents. Page 38

Cover art by Deborah Lawrence, Chicago

When Bill Penney and John Reed (above) closed their successful 50,000-gal./month, full-serve station to build a self-serve/C-store unit, people said they were crazy. But they don't say that now. Page 48

FUEL OIL
95.8¢ per gal. 150 min. C.O.D.
ARIBA OIL
989-8780

A promotional resurgence and recent equipment developments could spell brighter days ahead for home heating oil marketers. Page 54

(*More* Late News *on page 12*)

## Texaco Contract Challenged

**Texaco's increasing use of contract operators at its high-volume, multi-retail outlets has hit its first legal snag in what some think might not be the last such court case.**

A federal court judge in Miami was weighing the arguments of a chain retailer's suit which could set some boundaries for the Petroleum Marketing Practices Act, with a decision handed down by January at the earliest.

Farm Stores, which was terminated abruptly by its supplier, Texaco, in August, filed a complaint contending it had signed a three-year contract with Texaco in September 1982 to operate a Miami station with a C-store attached. Farm Stores said it was to handle the store rent-free in exchange for its management expertise.

The firm also said it had increased the station's volume from 30,000 gal./month to 30,000 gal./week, and although Farm Stores was operating on a contract, it nevertheless was a franchisee as well and entitled to the full protection of the federal marketing law.

Jobbers also are watching this one closely for its bearing on legalities of certain Texaco contracts.

## Federal Marketplace Probe Could Spur PMPA Changes

**In a move that could open doors for marketers seeking to change provisions of the Petroleum Marketing Practices Act, a sweeping congressional probe of the petroleum marketplace has been launched by the General Accounting Office at the request of House Energy and Commerce Committee Chairman John Dingell (D-Mich.).**

The probe was launched in November but wasn't made public until just before lawmakers adjourned for the year.

GAO's investigators and auditors were asked to conduct a thorough fact-finding of the entire industry, from the oil field to the pump. They also were instructed to pay close attention to the current status of independent marketers.

Rep. Dingell told GAO the goal of the probe should be to find out whether "independent marketers are undergoing losses in their population and volume of sales in excess of the overall decline in demand for automotive fuels . . . and the causes of any increment of loss not attributable to natural market forces."

The timing couldn't be better for the National Oil Jobbers Council (NOJC) and Service Station Dealers of America (SSDA), which are asking Congress for changes in the Petroleum Marketing Practices Act (PMPA). In fact, Rep. Dingell specifically asks GAO to send observers to upcoming hearings on PMPA.

Just as important, the investigation will produce periodic headlines—GAO reports are routinely leaked to reporters piecemeal as they progress. That will keep pressure on Congress all year to act on PMPA amendments and perhaps will expedite other bills (including changes in the windfall profits tax on Alaskan North Slope oil).

Predictably, NOJC and SSDA say they're "pleased" with Dingell's request. Both say they're confident the GAO finding will help their legislative cause and bring other benefits, especially regarding antitrust enforcement.

## Sun Targets Denser Areas

**Sun Co. is putting itself through a corporate wringer which ultimately will result in a sharp reduction in personnel and a redesigning of its domestic and international refining and marketing strategies.**

Sun dropped one shoe in early December when it announced that it is closing three facilities at its Marcus Hook, Pa., refinery that make solvent lubes, wax and specialty oils. It also is shedding its lubricant marketing operations in Europe. It will continue to manufacture lubricants at its refineries in Tulsa, Okla., and Puerto Rico.

The shutdowns will result in the elimination of about 500 of the 1,400 jobs at Marcus Hook, and possibly another 100 if the packaging plant is closed. The action also would end an additional 300 jobs in international and domestic marketing and administration, as well as shut off a $65-million write-off for tax losses in the fourth quarter.

Sun indicated previously that it is evaluating task force reports on downstream marketing operations, stripper well properties, accounting procedures and corporate staffing. Announcements are expected to be made on these phases early this year. But the key words on what is ahead for marketing are these of president Robert McClements Jr. to a security analyst group in New York City: "We plan on finding ways to streamline our refining and marketing operations so that we can compete where we can gain or maintain a competitive advantage. We will be focusing on higher-volume service stations in concentrated areas."

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## • MARKETPLACE AT A GLANCE

### AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

| OCTOBER | Gasoline (All types) | Leaded Regular | Unleaded Regular | Leaded Premium |
|---|---|---|---|---|
| U.S. City Avg. | $1.239 | $1.172 | $1.255 | $1.372 |
| Regions: | | | | |
| Northeast | 1.261 | 1.194 | 1.264 | NA |
| North Central | 1.265 | 1.212 | 1.289 | NA |
| South | 1.222 | 1.153 | 1.233 | NA |
| West | 1.212 | 1.129 | 1.234 | 1.369 |

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

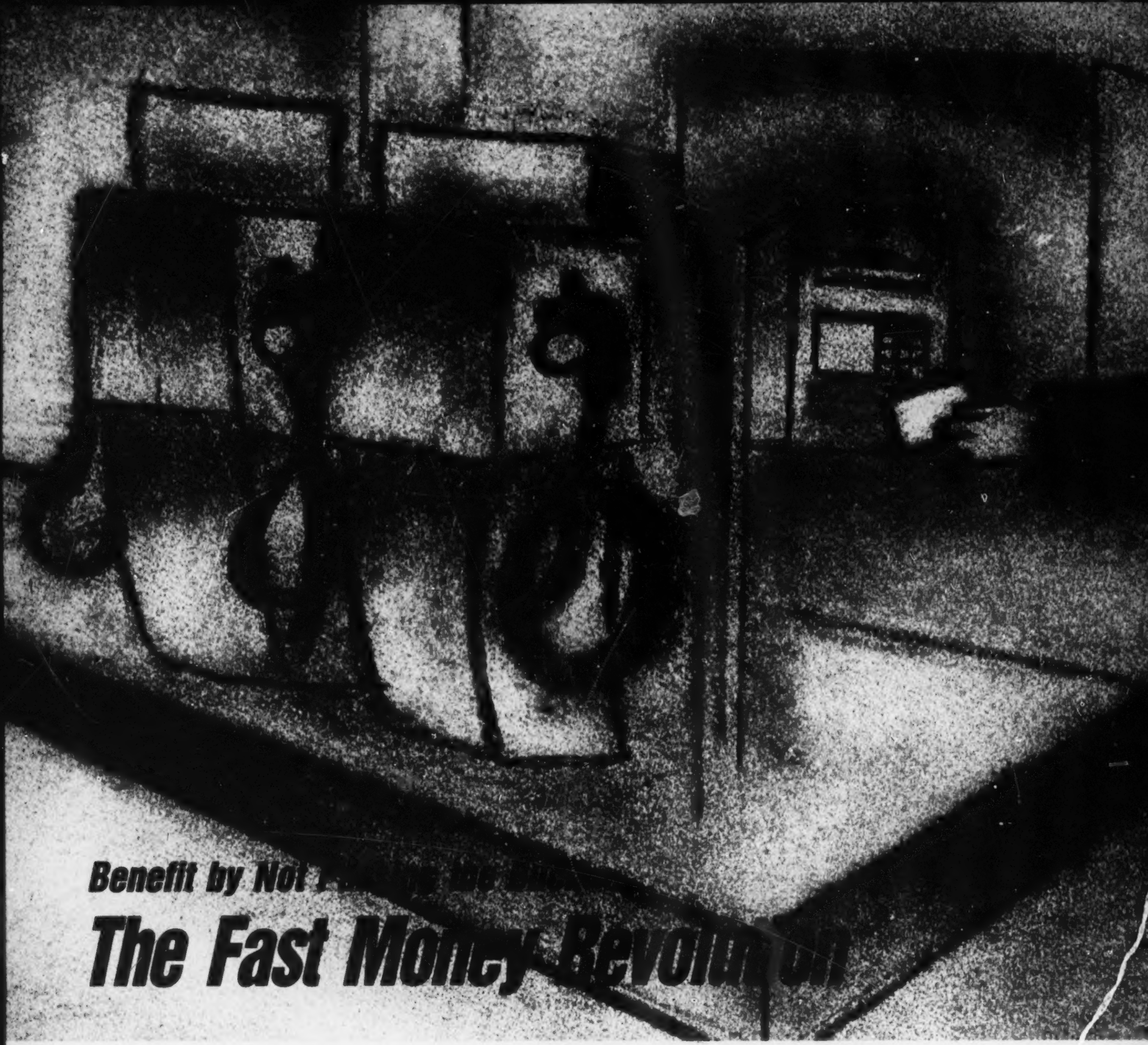
### STOCKS (Add 000 bbl.)

| | 11/25/83 | 11/26/82 |
|---|---|---|
| Gasoline (total) | 231,483 | 230,113 |
| Gasoline (unleaded)* | 99,322 | 93,825 |
| Jet Kerosine ** | 36,106 | 33,196 |
| Distillates | 162,549 | 183,011 |
| Residual | 49,182 | 62,286 |

**Included in gasoline total.*

***Jet kero only; totals no longer kept by API and DOE.*

*Source: American Petroleum Institute.*



### Benefit by Not [illegible]

# The Fast Money Revolution

**Petroleum marketing has entered a period of revolution in automation which has been brewing at various levels for roughly the past one-and-a-half years.**

Oil companies, banks, jobbers, dealers, switching networks and equipment manufacturers have been plotting strategies to eliminate eventually some, if not all, of the costs associated with cash, check and credit card payment. A host of major and independent marketers across the country have been testing equipment and software, all in the name of efficiency, cost control and less float time.

Card-activated fueling systems triggered by debit/credit cards, electronic funds transfer (EFT), point-of-sale (POS), automated teller machines (ATMs) and cash acceptors may or may not replace current payment methods. But the advantages of the new technology appear to be many, and the disadvantages few. If the various systems prove reliable, cost efficient and, most importantly, acceptable to consumers, all parties involved stand to gain. The marketer benefits from:

—Elimination of chargebacks on bad checks

—Increased card base with systems accepting many cards, and the related increase in traffic

—Efficient product inventory monitoring and financial management and

—Lower risk of robbery on-site and during bank drops.

What's more, the cost of a single transaction drops dramatically with a debit card system. Compare:

—Cash handing: 54¢

—Check handling: 60¢ to $1

—Credit card processing: $1.25 (without interest charges) and

—Debit card processing: less than 10¢.

Debit systems especially help an independent marketer acquire a larger customer base without incurring the fees associated with credit cards. One Buffalo, N.Y., marketer who has installed POS terminals at four of his outlets points to a typical 3% credit card processing fee as prohibitive when profit margins are so low.

A Chicago-area marketer says debit card use will promote larger purchases and could add as much as 200,000 gal./year in volume. He plans to target the system at customers using plastic.

Depending on the number of functions, terminal controller equipment costs anywhere from $8,000 to $25,000, with a typical range of $10,000 to $12,000.

David A. O'Connor, president of EFT Group, Inc. a suburban Washington,

---

**By Tim Grace**
**Staff Reporter**

D.C.-based network of 46 financial institutions has compiled cost/savings figures for such systems.

He says the average system hardware costs about $6,400 a year to operate and maintain, after depreciation. On that basis, a retailer must have 5,000 debit card transactions per month to lower the cost of one transaction to 10¢—a far cry from check or credit card transaction costs.

Installing a personal identification number (PIN) pad (vital to system security), brings average monthly system expenses to $750. At 4,000 transactions per month, the cost of a transaction with the added equipment would be about 19¢.

Full-scale application of these systems is expected at gasoline outlets by 1986 or 1987, according to observers. And, a growing tide of major company pilot programs only reinforces such speculation.

Mobil, for example, is on the cutting edge of this movement, laying out an estimated $10-million for equipment at 2,400 stations while signing agreements with regional financial institutions to provide electronic authorization of debit transactions [NPN—Dec. '83, p29 and page 33 of this issue].

## Demand for Efficiency

To understand this trend, one must look back to the 1973 Arab oil embargo. The oil industry enjoyed healthy profits and could afford inefficient operations, typified by the use of paper-based money transfer.

But while the oil shock inflated profits, it also let the air out of product demand. The recent oil glut and greater competition have forced marketers to reevaluate every phase of operations, most importantly, operating costs.

Market pressures for efficiency prompted several major companies to impose surcharges on credit card purchases, and led Arco to eliminate its credit card entirely in April 1982.

These increased costs, coupled with percentage transaction fees and the cost of float has prompted many industry observers to predict that electronic funds transfer will become a universal form of payment by the end of the decade.

## Unscrambling the Systems

In spite of the many different systems being tested, there are basic similarities in terminal function and how they fit into the transfer scenario.

In most instances, a customer inserts a credit or debit card which contains a magnetic stripe with a personal code. Depending on the system, the customer either enters his PIN number into the terminal or the terminal simply reads the code imprinted on the magnetic strip.

If the customer's credit line is approved, the pump is activated and the transaction begins. Depending on whether the system is debit or credit, fund transfer can be instantaneous or can take anywhere from one to 30 days.

Terminals can be either island-mounted or located within the store or kiosk. Often, POS terminals inside the store are attendant-operated, although the customer can also sweep the card's magnetic strip through for authorization.

> A $6,400 system should take 5,000 debit cards a month to lower a transaction cost to 10¢.
>
> —*O'Connor*

Industry observers generally agree that island-mounted terminals are more advantageous to both the retailer and consumer, saving convenience and time.

"The key is the amount of time that it takes to walk over to the kiosk to get approval," says Ron Burkhart, president of Golden Gallon Co., Chattanooga, Tenn. He says the use of any POS terminal saves five to six minutes off of a transaction as the attendant does not need to scan credit card lists for credit-worthiness.

Other marketers like the idea of freeing the attendant to perform other services, rather than gasoline purchases, in order to cut the net cost of labor. Regardless of the mode of operation, instantaneous EFT effectively eliminates float time.

## The Cost of Paying

Lower retail margins these days have made jobbers increasingly concerned about the cost of credit and float time. Debit-based funds transfer becomes especially attractive to oil marketers in comparing transaction cost differences between cash, credit cards, checks and debit systems.

Dr. Martin "John" Atalla, president of Atalla Corp., a San Jose, Calif.-based manufacturer of PIN systems, has compiled figures outlining the transaction fees associated with each of the four primary payment systems.

It costs a retailer 54¢ to handle each cash transaction, which accounts for some 64% of all purchases. And, the cost to handle checks and credit cards are even higher.

Transaction fees associated with checks—which are used in 8.9% of gasoline purchases—range from 60¢ to $1 per check. The cost of a credit card transaction from start to finish is $1.

Atalla says that U.S. consumers wrote an estimated 43-billion checks for goods and services last year, with total processing costs adding to $25-billion.

An oil company's card costs that company $1.25 per transaction, escalating to $1.61 when 2% interest over a 60 day payment period is added.

Tests conducted with debit systems so far show transaction fees to be less than 5¢ per transaction with the cost of communication adding another 5¢. "That's what all the excitement is about," says Atalla.

The excitement surrounding debit/credit EFT systems ebbs, however, when someone raises the question of who will pay the fees.

"As systems are installed and each participant discovers the benefits of having the system, then we can decide who pays," says EFT Group's O'Connor.

Likewise, Mobil has taken a wait-and-see attitude on debit card transaction fees. In its California test, for instance, Mobil and First Interstate and Crocker National banks reportedly have agreed not to charge one another for Mobil's use of those banks' debit cards for the time being.

A few independent marketers, however, are trying—some successfully—to pursuade their debit card network banks to absorb transaction costs "for the privilege of access to funds of the jobber's customers."

## Many Advantages

Golden Gallon installed POS terminals at 80 of its 103 gasoline outlets this month. Burkhart believes the system will help him compete with majors in the area.

"The card will increase the amount of money the consumer spends per transaction," says the 88-million-gal./year jobber. "I think the system will increase sales by about 8% in the beginning."

Paul Hefner, vice president at First Interstate Bancorps, Los Angeles, Calif., says the average ticket for gasoline credit purchases ranges from $16 to $18. "If we can get today's cash buyer to convert to the new method, there is every likelihood that he'll buy more gasoline per visit."

"Gasoline sales are a function of price, price, price and convenience. So, the new payment system will succeed only if it doesn't affect price at the pump," Hefner cautions.

Jobbers also stand to benefit from other terminal applications.

Prototype terminals being tested by Texaco provide readings on gallonage levels in underground tanks along with the tanks' water content. Daily readouts of this information are stored on a host computer.

Full-scale application of such diverse functions are about one year away. Other benefits, such as elimination of chargebacks, are being realized today. Because transactions must be authorized before they can begin, marketers are spared the cost of chargebacks that range from 0.5% to 1.5%.

"EFT also extends the depositing day," notes Helen Tepperman, manager of business services for Wells Fargo Bank, San Francisco, Calif. Wells Fargo has been conducting tests of a debit system in conjunction with 23 independent Shell dealers since November 1982 [NPN—April '83, p49].

"You don't have to cut off your receipts and get them to the armored car and to the bank by 3 p.m.," she says.

Switching networks also serve the oil marketing industry as card authorization centers. Perhaps the best known network today is the J.C. Penney system which began in 1975 as a link between 1,700 Penney's stores. Penney's currently is conducting a test with Shell in Houston.

**Remote Services' Spears says motorists purchase 40% more fuel with card acceptors.**

**Multi-function island terminals increase the customer base, as well as reduce costs.**

Robert Mooney, president of JCPenney Systems, says his company pays all telecommunications costs inherent in debit/credit systems. Costs range from 9¢ to 14¢ per transaction. Penney's network, along with others, provides the retail outlet with electronic authorization of credit cards and an additional card base.

Systems onstream are seeing anywhere from 95% to 99% uptime. Early problems with interrupted phone service, temporary power outages and jamming of receipts are becoming less frequent, according to Mooney.

## Not All Roses

Observers say the biggest stumbling block to public acceptance is that a debit transaction places the consumer's money at risk. With paper-based transactions, the bank's money is tied up. In a debit transaction, by the time the consumer realizes a mistake has been made, the money is gone.

The disadvantages to the jobber appear when a system is implemented without sufficient planning. O'Connor cautions that in order to make POS profitable, jobbers must have at least a three-year development plan involving employee training, consumer education and system experimentation.

## State of the Art

Some systems now being tested are unable to accept cash or a variety of cards. As a result, retailers have questioned whether the investment in POS systems will yield increased business. But other systems can accept virtually any card.

"I feel that a jobber is spreading himself too thin signing up with a network which only accepts bank debit cards," says Burkhart. He says the system he uses, Atlanta-based Buypass, accepts all cards and could increase his business by 35% within two years.

Most systems on the market can control up to eight pumps, with pricing capability for as many as six grades of fuel.

The incorporation of cash acceptors by some manufacturers in a POS system underscores the findings of a Dresser-Wayne task force on electronic transfer systems.

The participants found that in order to achieve a smooth transition from paper to electronics, a system must support both methods during the interim.

Some systems offer other features such as receipts, which provide customers with information such as purchase date, location, and telephone numbers where consumers can dispute billing errors.

Other systems provide specialized readouts designed to appeal to fleet operators. Computer printouts detail information as diverse as vehicle number, driver, date, gallons purchased, fuel type, mileage and warnings when a vehicle is scheduled for maintenance. Additional applications will be needed to justify system expense, however.

"We're all looking at substantial increases in local telephone rates," says O'Connor. The increases, primarily stemming from the AT&T breakup, will be a prime motivating factor behind the use of multi-application systems which support inventory and management information data, O'Connor says.

## Majors' Pilots

The number of pilot EFT and POS programs seems to be increasing by the hour. Many are being carried out by major oil companies with assistance from various banks and bank networks. The Mobil test in the Washington, D.C., area by far is the most extensive on-line system.

Some 2-million bank card holders in the MOST and CASH FLOW networks have access to the terminals, as do holders of

Mobil cards, VISA and MasterCard. That preceded a November announcement of the California network agreement—all designed for Mobil's eventual 2,400-unit capability marketwide.

Arco is doing something similar, installing the remainder of some 1,500 ARCOmatic terminals across the country as it tests debit systems at 25 Santa Clara, Calif., outlets [NPN—Oct. '83 p.20].

The test, which incorporates Bank of America Versatel cards, began last October and is scheduled to last six months. Results, according to Joseph Tebo, Arco's manager of sales development, have been encouraging.

"Studies show that 30% of customers buy gasoline using some type of card, 50% of those pay on time," says Tebo. Arco's entrance into debit card testing appears to be an effort to recoup some of the business lost when it abandoned its credit card.

The company will be conducting further tests with debit. Testing is scheduled to begin soon in San Diego and in Sacramento, the site of the first ARCOmatic.

Typically, most debit tests being conducted are rather new and results are hard to come by.

One
cash sale
costs retailers
54¢, versus 10¢
with debit cards.
*—Atalla*

The Wells Fargo/Shell program in San Francisco, in operation since November 1982, remains a pilot until the two parties decide whether consumer interest warrants full-fledged implementation. That program enables 1.2-million holders of Wells Fargo EXPRESS BANKING cards to purchase gasoline at point of sale. Wells Fargo maintains accounts, while Shell pays monthly equipment rental and transaction fees.

"This (POS) is wonderful when it works right," says Tepperman of Wells Fargo. "It's awful when it goes wrong." Tepperman says a wrong debit transaction could cost as much as $3 to $4 to correct and reprocess.

The bank also has provided incentives for the consumer to use EXPRESS BANKING cards. Promotions have included $5 off the first purchase with the card.

Still, results have been less than optimistic. Tepperman says the test has yielded an average of two transactions per day since its inception. "It's a combination of not being a common event in the consumer's life and a case of not having a big enough buying base in one bank."

To achieve success, Tepperman says the terminals must eventually accept all bank cards to increase consumer options.

Exxon Corp. is banking on its own debit card, the AutoCheck card, as a means of [illegible]eding up the paying process. The company will not reveal how many of the cards have been issued.

A test underway at 84 Phoenix, Ariz., stations is an effort to receive payment from Exxon credit card holders in two days rather than 30. Purchases are charged to the consumer's personal checking account through Chase Manhattan Bank.

An industry observer says the cards, which are sent unsolicited to Exxon credit card holders are a means of "shifting consumers away from credit to debit."

Sun is another major to announce its participation in debit testing. The company will be sending new magnetic stripe cards to its 3-million credit card holders. An electronic credit card system will be tested at company owned stations in suburban Philadelphia this year. The outlets will only accept the Sunoco card, according to Diebold, Inc., the manufacturer of the equipment to be used in the test.

Receipts will provide the consumer with information on account status, price of transaction, date and grade of fuel. Information is immediately transferred to Sun's credit card center, and the consumer is billed monthly.

While the majors also are clearly interested in the efficiency promised from electronic debit/credit terminals, independents are continuing to make arrangements with financial institutions in an effort to get a jump on the competition.

Members-only Gascard Club foresees entering retail market with new debit agreement.

The test by Remote Services (the gasoline retailing subsidiary of Conna Corp.) at Convenient Food Mart outlets in Louisville and Lexington, Ky., began in December 1982 and is now in place at more than 100 convenience store locations [NPN—June '83, p41].

Remote president John Spears III reports that the average motorist at the locations purchased 45% more gasoline because of the card acceptors. VISA and MasterCard are accepted at the installations with card processing provided by First Security National Bank of Lexington. Payment is received several days following the transaction.

"This is the first time in 25 years in the oil industry that I've heard a customer label buying gas 'fun,'" says Spears, a 14-year marketing executive at Ashland before joining Remote in 1972.

Other independents experimenting with the terminals include Robo in Buffalo, N.Y.; Gascard, a Del Mar, Calif.-based network of unattended fueling stations; and Bell Fuels, Chicago, Ill.

Peter Schmitt, Robo president, says the processing fee associated with bank cards made credit card acceptance impossible at his four 200,000-gal./month outlets. Schmitt figures that he'll recoup some of the credit card business from the 1-million debit card holders of the Metroteller bank, which is providing the switching network for the tests.

"The best part is not having to deal with cash, getting it to the bank," says Schmitt, who is paying $10,000 each for the prototype systems controlling six pumps at each of his locations.

"Initially, it will surprise me if 15% of my business comes from the card system, but it should help with the margins," he says. Schmitt says typical rack-to-retail margins for Buffalo-area indies are roughly 3¢ gal.

Gascard, up until late last year, was strictly a members-only operation with outlets in California, New Mexico and Texas.

When the franchise last month announced an agreement with Citicorp, Sears Roebuck and E.F. Hutton to serve as networks in a debit system, Gascard considered entering the retail market sometime in the future.

Bell Fuels in early December was trying to finalize agreements with a prominent national network and a local bank in order to introduce a debit card system at its Bensenville, Ill., station.

"If I couldn't pick up an extra 200,000 gal. it wouldn't be worth it," says Tom Campbell, director of operations. "But the average fill on a credit card is higher than on a cash transaction. We need to do this to keep the majors from dominating," he says.

### Too Much Too Soon?

As shown by the slow acceptance of debit in San Francisco, the introduction of debit/credit terminals into a market does not mean instant success.

Some of the initial drawbacks appear to be communication costs for the individual retailer, bugs in the systems and the promise of too much too soon.

Poul Moller, who formed International Fuel Corp. (IFC) in 1982 after selling his interest in USA Petroleum, predicted that 1,000 stations would sign up for his system by the end of the year.

The system was tested at several stations, with IFC footing the cost of transactions. As of early December, only three stations were testing the system nationwide. A total of 1,000 card holders had access to the terminals.

Deane Stewart, a Springfield, Ill., jobber experimented with POS in 1982, with one of his stations on-line with the Easy Answer network. The volume of card use never accounted for more than 2% of total transactions.

A Chicago area marketer also cites what he calls the banks' "tendency to rush into these tests" without a thorough knowledge of the system's costs, demands and how transaction fees are charged. "They should get their act together before starting these programs," he says.

### EFT Over There

Electronic funds transfer is gaining widespread acceptance in Europe, and U.S. proponents are hoping the trend will take root here, across the Atlantic.

In Norway, one Shell station over three months achieved 20% of its total gasoline volume by the use of the "Mini Bank Card." Another station, according to Robin Lee of Shell Norske, had 367 debit transactions during one 24-hour period.

Interstate Bancorps' Paul Hefner says such success eventually will be duplicated in the U.S. because EFT technology meets the all-important success criteria: price and convenience.

### Unattended Stations

Of course the inevitable result of full-scale debit systems in petroleum marketing is the unattended service station. *The Nilson Report*, a newsletter for credit card executives, predicts that unattended stations will dominate marketing by 1992.

What could squelch that scenario, however, is fire codes that prohibit unattended stations. Several Gascard clubs across the country are avoiding that law through making gasoline purchases at their outlets an exclusive right of card holders.

Unattended stations, and debit terminals for that matter, will not replace paper-based money transfer as the universal mode of exchange if the public does not accept the change, however.

Point-of-sale, according to John Atalla, will be going through a period of "chaos and confusion" for the next three years or so, as participants at all levels are educated and the economics are sorted out.

Wide-scale acceptance by the public, however, is possible with incentives, suggests Tepperman.

"A new group of people will be the hard core purchasers of the 80s," she says. "This group has a fascination with options, so they'll look at debit card promotion as one more option. Experiments over the next year will determine how far we get in the learning process."

The jobber must spend a lot of time becoming familiar with this system, says EFT Group's O'Connor. That means a three-year development plan which will enable the merchant to incorporate the system into as many applications as possible.

All in all, the keys to a successful electronic money transfer system, according to observers, are: consumer acceptance of "impersonal" hardware, careful selection of compatible equipment, acceptance of few but widely used debit and credit cards, solid product security and tailoring to the local level, where repeat business is assured. NPN

## Fast Money Coming to Racks, Some Distributors Discover

While some marketers are excited about one day installing debit card terminals at their pump islands, they tend to be anxious about facing a POS/debit system at their suppliers' racks.

The prospect of major oil companies installing such systems at supply terminals poses a problem for the small and large jobber alike. Instead of having a maximum 30 to 45 days to pay for product, a jobber might soon find that he must transmit funds c.o.d. through a debit system.

"It would hurt our purchases to a certain extent," says Bob Gregg, a Phillips and Conoco jobber in Beaver, Okla. Gregg, who himself is considering installing debit terminals at his retail outlets, says the company would have to rely more heavily on prompt payment from customers in order to cope with his own loss of float.

Another Oklahoma jobber says that his suppliers are "doing everything they can" to speed up payments. He cites curtailing of float terms and refers to other jobbers who have been placed on a c.o.d. basis.

Yet another jobber, heavily into debit testing at the retail level, feels those jobbers most able to cope with debit terminals at the rack will be those who are able to pay early and receive a discount in the process.

Gulf has taken the first step in what some believe might be a move in the debit rack direction. The company is installing EFT systems at terminals but is allowing jobbers an extra four days before transferring funds, less a 1% discount. Those jobbers not wishing to participate in the program have 10 days before having to pay for product. The company says response to the system has been favorable.

Jack Allen, a Stubinville, Ohio, jobber finds the extra time advantageous to his business. "We're also receiving cash payments for card purchases we relay to Gulf much quicker," he says.

Conoco is offering jobbers a shot at a quick-payment plan too. Participating jobbers allow Conoco to debit accounts almost immediately for product purchases but also receive prompt credit for card receipts.

---

### The Cost of A Transaction

| | |
|---|---|
| Cash | *54¢ |
| Oil company credit card | $1.25 |
| Bank credit card | $1.00 |
| Check | 60¢ to $1.00 |
| Debit card | 10¢ |

*Cost of handling

Source: Atalla Corp., San Jose, Calif.

**FUEL OIL**

# 1984 Outlook Brightens for Oil Heat

**Despite the fact that the heating seasons of '82-'83 and the first half of '83-'84 have been disappointing for fuel oil marketers, the word's going around that better days and brighter times are on the horizon for the distillate industry.**

Industry circles are talking now of some technological breakthroughs that will mean improved equipment, higher operating efficiencies and enhanced opportunities to fight gas and electric competition head-on.

One big breakthrough is being field-tested this winter, sources say. If all goes well, it will make its debut sometime next spring. It is an oil-fired furnace, using the condensing mode and promising an efficiency rate of 95% to 97%.

The best of the conventional oil-fired equipment already on the market has an efficiency rate of 85% to 88%. So, the increase of 10% to 12% isn't necessarily a mammoth leap upwards. But it's infinitely better than conventional gas equipment whose efficiency rating is in the 70% to 75% range.

Gas also is working on a condensing mode, but has been experiencing great difficulty in overcoming some of the inherent problems.

A point to remember is that when gas does perfect its condensing mode furnace and achieve the same 95% to 97% efficiency rate—and assuming that the oil-fired model will make its scheduled appearance next spring—both fuels will be evenly matched in sales appeal.

It isn't hard to remember the dark days when oil-fired equipment generally was disparaged as being inferior in efficiency to conventional gas equipment. Many consumers still believe gas is more efficient and burns hotter than oil.

### Takes Flight in Spring

Word of the condensing mode equipment for distillate comes from L.M. (Bud) Woodworth, who is with the Brookhaven National Laboratory's Associated Industries, Inc., at Upton, N.Y. This unit works on government-industry contracts to explore research and development, and to function as sort of an impartial testing laboratory to verify technological achievements.

Woodsworth told *NPN* in late November that he was privy to the status of the development but that he was not privileged at the time to reveal the manufacturer's name.

"He's doing substantial field-testing now and expects to make a formal announcement on the subject in the spring," he said.

Industry sources say several manufacturers have the capability of developing a condensing mode furnace, which uses a different technology than conventional combustion burner-heat exchanger approaches.

But there hasn't been too much incentive to do it because of research and development costs, complexity of equipment, and innumerable problems involving soot, sulfur and corrosion. And, there always was a question in the minds of manufacturer who did proceed: Would the space-heating industry embrace such a technological breakthrough and support it?

Industry sources guessed that the new condensing mode equipment would be about the same size or maybe slightly larger than conventional equipment and that the cost would be somewhat higher at the outset. But the higher efficiency would help ameliorate that. Installation would pose no problem for skilled technicians, these sources said.

### Low-Input Burners

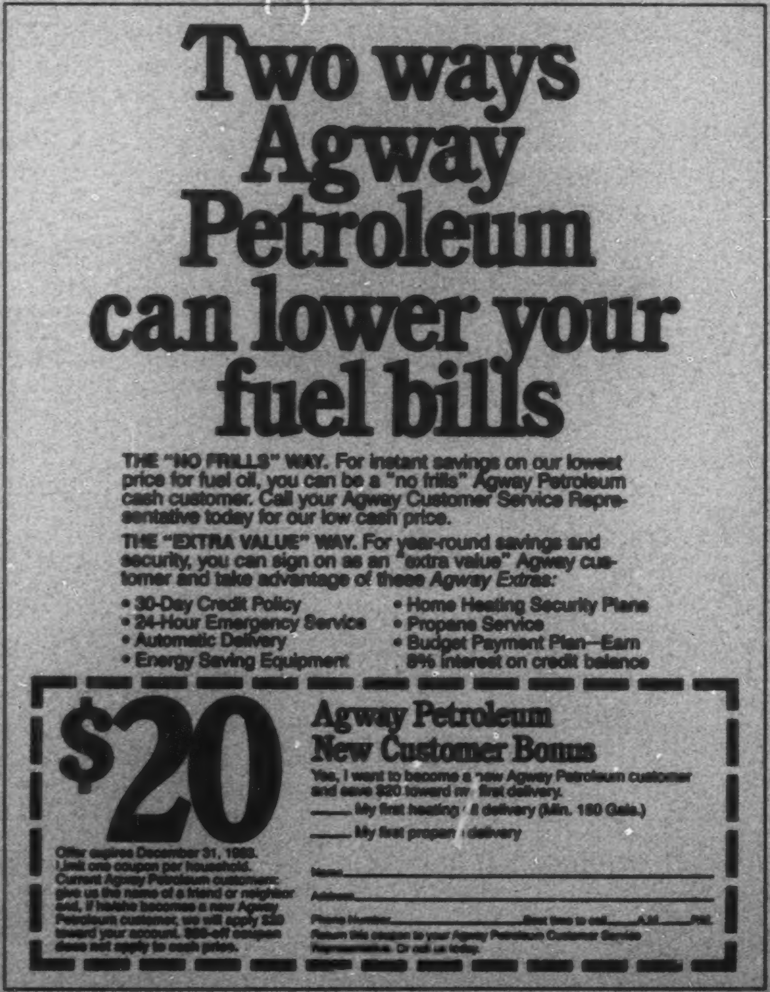
Woodworth also noted that progress is being made by researchers on low-input burners but that "success here isn't immediate . . . I'd say it's more like two years from now."

About the best that conventional burners can do at this time is .05 gal./hour. Lower than that, the nozzles clog repeatedly, meaning that a different form of atomization is needed. The target is perhaps .02 gal./hour, which means that the burner would be on longer but at a lower rate with less heat wasted than happens in off-on cycles.

Success in this concept also would bring a rich plum for the fuel oil industry and home builders. Because vented heat

**By J. Richard Shaner**
**Executive Editor**

**Aside from equipment strides, oil dealers are promoting heavily oil's price and benefits.**



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would be lower in temperature, it would no longer be necessary to build brick and lined chimneys to the rooftop.

Because chimneys add $1,000 or more to the construction cost, the development would make fuel oil more competitive with gas, which requires only a simply metal vent either to the roof or to the side of the structure. It also would undermine electric heat's promotional claim that chimneys and fireplaces leak more warmth than they save.

Another exciting development currently being investigated by both automotive and fuel oil equipment manufacturers is a valve with a mesh screen that causes gasoline and distillate to vaporize into finer droplets than possible with conventional equipment.

The inventor says the valve and screen imbedded in a nozzle will produce droplets of 10 microns in size compared with the 50-to-150 micron beads that are sprayed into combustion chambers currently.

This inventor says he has a patent on this and a number of other items that he has developed. Chrysler Corp. was said to be the automotive firm that's looking at the valve, while the identity of the fuel oil equipment maker was not disclosed.

This valve, however, could be the long-sought nozzle needed for the low input burner—if it's commercially successful and viable.

## Promotion Conference

Against this background, there's another cheering note of optimism for the hard-pressed distillate marketers.

The National Oil Jobbers Council already has begun work on another major oil heat promotional conference to be held this summer, probably in August and most likely in Alexandria, Va. That's where its first effort attracted an almost-overflow audience and a rebirth of unbridled enthusiasm throughout the industry [NPN—Oct. '83, p44].

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"We're getting off to an early start on the 1984 conference because the one last August unquestionably was far more successful than we ever dreamed it would be," said NOJC vice president Mark Decker.

"We would like to have more of the show-and-do displays of local oil heat promotion programs, so that we all can share in the progress that's being made," he said. "We'd also like to get more of our manufacturer members more involved in the next conference. There are a lot of things going on that they could tell our distributors and our promotion people."

Fuel oil marketers were heartened by last year's promotional conference. Some thought that fuel oil had made a "quantum leap" in setting the stage for a comeback when many people were glumly looking at an equally glum future.

A good indication of NOJC's expanded collective thinking was the appointment of Dugald Stewart, of Griffin-Galbraith Fuel Co., Tacoma, Wash., as chairman of the council's heating fuels committee.

Stewart and his son Greg, who is executive director of the Oil Heat Institute of Oregon, both participated in the 1983 promotional conference in Alexandria.

More than that, however, the appointment of Stewart brings the Pacific Northwest closer into the council's fuel oil activities—more so than ever in the past.

"The people up in the Pacific Northwest not only have some strong competition but they also have some innovative and exciting ideas about promotion," said one committee member. "We can learn a lot from them.

Stewart succeeded Bob Parr, of D.J. Parr, Lebanon, Pa., who played a key role in 1983 in reviving the concept of oil heat promotion under NOJC auspices.

## Rough Markets

The road ahead could be a tough one for many heating oil marketers.

Most took a beating last winter when the weather turned out to be the warmest in three decades—after forecasts that predicted the coldest winter in a century.

Forecasts for "normal" weather for this heating season got off to a hollow start, with September and October running some 5% warmer than 1982. November hardly compensated, putting a damper on any real accumulation of degree days.

Distillate demand took a surprising upturn, nevertheless, in the final quarter of 1983, as did other petroleum products—except residual fuel oil, which continued its prolonged slump.

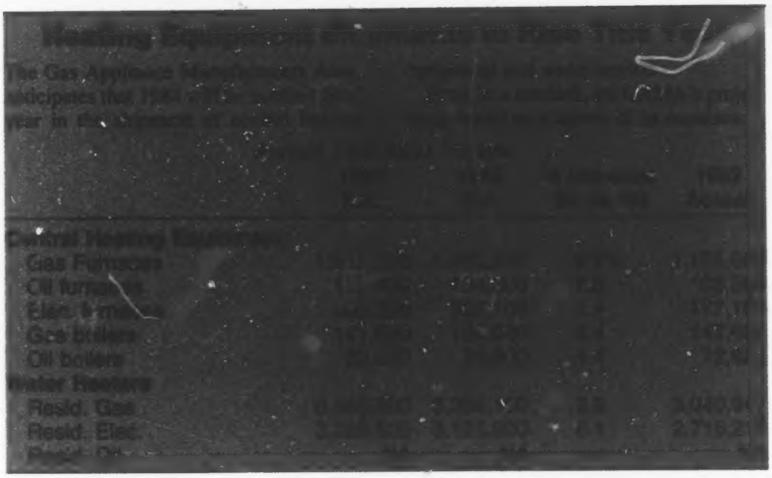
Distillates were expected to average a shade over 3-million b/d in the final three months, up 2.4% over the same period of 1982. *But* more of that—roughly 60%—went into diesel fuel for highway transportation and stationary motors and utilities than into residential furnaces.

With a glut of heating oil supplies, however, prices and margins continued to be depressed last month. The slow movement of product and the anxiety of many marketers to build volume added to these pricing and margin pressures with discount cash-and-carry prices for home deliveries as much as 10¢ to 12¢ below normal "street" prices.

There isn't much likelihood that marketplaces will change much in the months ahead, barring a prolonged seige of cold weather this quarter. Even the futures markets take a dim view of things, projecting wholesale prices in the low 80¢ gal. range through the first four months of the new year. Futures markets are speculative, however, and react rapidly to weather, news and political developments.

Home heating oil prices averaged around $1.20 gal. during the last quarter of 1982, but averaged at least 10¢ gal. below that during the comparable period last month. Last spring, after the disasterously long spell of warm weather, consumer prices averaged $1.03 gal., while deliveries under $1.00 gal. were not unusual.

One note of relative cheer for the fuel oil marketers: As their prices eroded, consumer costs of natural gas continued to rise. In the wake of Congress' failure to reach any agreement on even limited decontrol of gas, it was estimated that gas customers would have to pay as much as 15% more for their supplies this winter—even though supplies are more than adequate to meet demand. **NPN**



# TBA Briefs

## Battery Market Changing; Better Days Ahead?

**The battery industry has gone through many changes over the past several years, and will continue to evolve as the product improves, says Milton C. Zilis, vice president of Johnson Controls, Inc., the parent company of Globe Battery.**

At the same time, recent unit shipment figures indicate some recovery over and beyond seasonal changes. [See table.]

Zilis says that in order to cope with market changes, companies must invest in the "protection and improvement of their market position with top quality products and service." Among the changes in the product Zelis discusses is battery size.

"As automobiles and trucks have evolved to smaller, fuel-efficient machines, the battery has followed right along, getting smaller and more efficient at the same time," he says.

While batteries have become smaller, Zilis points out that lead prices have fallen. If they remain low, he says pressure for alternative chemistries and unit construction will be reduced.

However, battery configurations will continue to change, says Zilis. "We can expect an overall reduction in size to almost half of what is considered 'normal'."

Zilis says the use of a second battery installed in automobiles is feasible, considering the possible need for a backup power system to handle computer memory requirements.

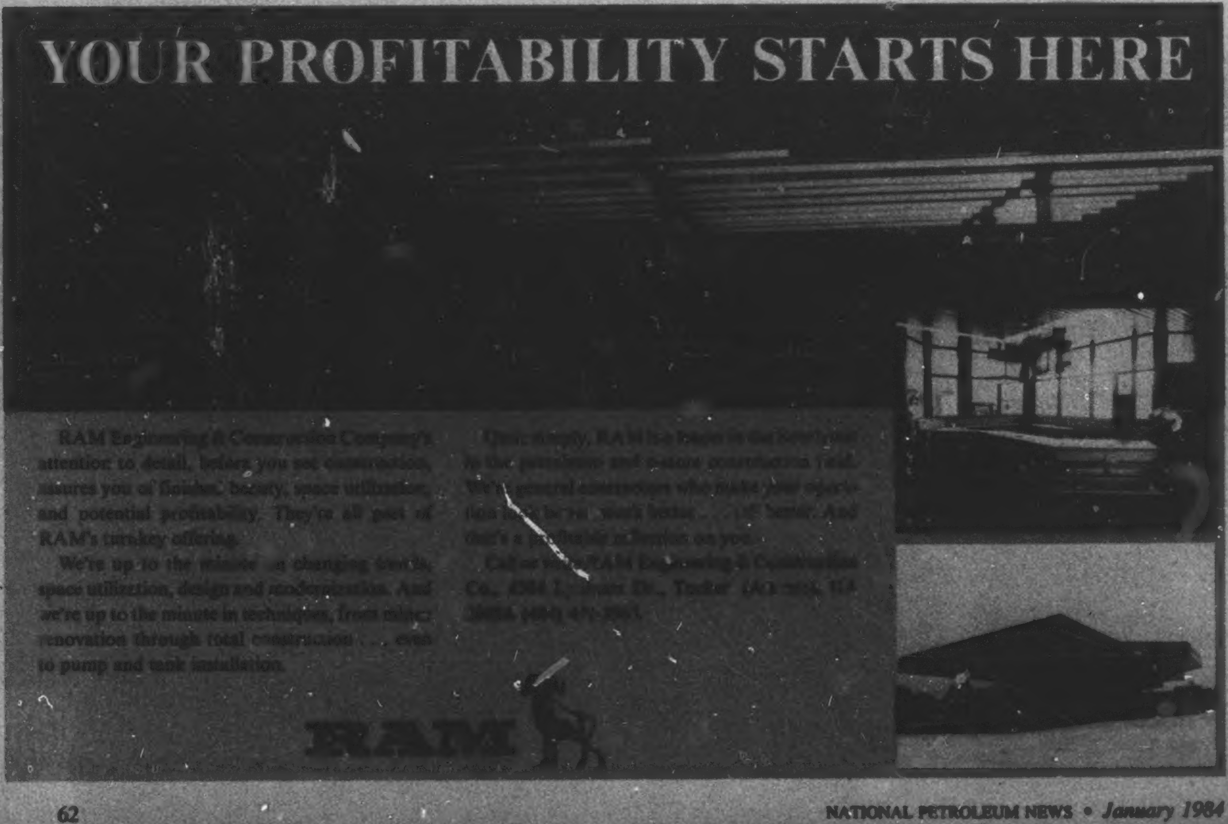
While Zilis notes changes and cutbacks in the industry, figures from Battery Council International tend to show an upturn in replacement battery shipments.

A council spokeswoman says increases in May and June arose from seasonal trends and the general upturn in the economy which has led to increased car sales.

### Shipments of Replacement Batteries by United States Manufacturers

| | 1983 | | 1982 | | % Change | |
|---|---|---|---|---|---|---|
| | Month | Year to Date | Month | Year to Date | Month | Year to Date |
| Jan. | 3,707,578 | 3,707,578 | 4,897,079 | 4,897,079 | −24.29% | −24.29% |
| Feb. | 3,070,134 | 6,777,712 | 4,268,518 | 9,165,597 | −28.07 | −26.05 |
| March | 3,730,055 | 10,507,767 | 3,838,828 | 13,004,425 | − 2.83 | −19.20 |
| April | 3,508,708 | 14,016,475 | 3,610,985 | 16,615,410 | − 2.83 | −15.64 |
| May | 3,720,321 | 17,736,796 | 3,584,287 | 20,199,697 | + 3.80 | −12.19 |
| June | 4,032,340 | 21,769,136 | 3,639,948 | 23,839,645 | +10.70 | − 8.69 |
| July | 3,914,246 | 25,683,382 | 3,628,959 | 27,468,604 | + 7.86 | − 6.50 |
| Aug. | 5,099,991 | 30,783,373 | 4,749,514 | 32,218,118 | + 7.38 | − 4.45 |
| Sept. | 6,373,487 | 37,156,860 | 5,819,415 | 38,037,533 | + 9.52 | − 2.32 |
| Oct | 6,548,057 | 43,704,917 | 5,659,738 | 43,697,271 | +15.70 | − 0.02 |
| Nov. | | | 5,237,208 | 48,934,479 | | |
| Dec. | | | 5,279,976 | 54,214,455 | | |

Source: Battery Council International



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# Past, Present and Future of Oil Marketing

# NPN

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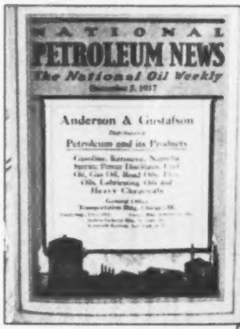
WAVERLY OIL WORKS CO., PITTSBURGH, PA.

THE "DEFIANCE" STEEL BARRELS

THE AMERICAN STEEL PACKAGE CO.

FEBRUARY 1909



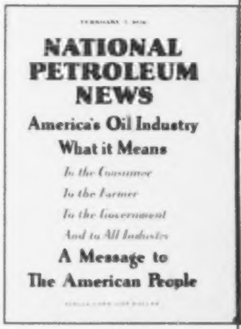
NATIONAL PETROLEUM NEWS
The National Oil Weekly

Anderson & Gustafson

Petroleum and its Products

1917

1932



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PETROLEUM
NEWS
America's Oil Industry
What it Means
To the Consumer
To the Farmer
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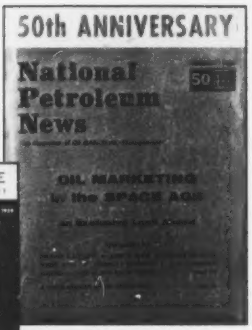
50th ANNIVERSARY
National Petroleum News
OIL MARKETING in the SPACE AGE

FEBRUARY 1959

OIL CENTENNIAL ISSUE
NPN
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IN OIL'S SECOND CENTURY

AUGUST 1959

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SICK STATIONS

1964

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How Smart Oil Marketers Are Cashing In On the Gas Shortage

1972

Oil Companies Wonder Where TBA Dollars Went
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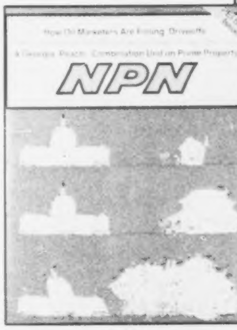
The Sophisticated Self-Serve Comes of Age

1977



1979

Marketing on Biggest Spending Spree Ever
How Holiday Profits from C-Stores, Tires
NPN
A YEAR OF DECISIONS

DECEMBER 1983

# • TRENDS

## Has Gasoline Marketing Reached a Crossroad?

**Will the ultra-expensive, high-volume type of retail facility now being built by "multi-line" retailers finish off the traditional "stand-alone" type of service station?**

Such questions are being raised as the intense scramble for gallonage continues in today's virtually no-growth market.

History has taught gasoline marketers never to say never about new low-cost concepts. Frank Urich began the self-service trend following World War II with a $35,000 station in Los Angeles. Some of the early convenience store pioneers had initial investments of $10,000 or less. [See story on page 92.]

But such trend-setting ideas of the past have evolved into ultra-expensive facilities today. Marketers now talk in terms of $250,000 minimum investments for multi-pump C-stores, and the tabs on some run up to $1-million or more. For such outlays, they usually want a facility to pump at least 150,000 gal./month, with the targets much higher for the more expensive ones.

John Roscoe—a C-store chain owner who describes himself as a farmer, oil and gas investor, and stockholder in many oil companies—is one who believes gasoline marketing in America has, indeed, reached a crossroads.

Roscoe is one of the many convenience store owners who, in recent years, has found the gasoline business something good to be into. In 1981, the most recent numbers available, he had 140 stores in four western states selling almost 7-million gal. of gasoline per month. Since gasoline has become a big part of his overall business, Roscoe spends considerable time studying the oil industry.

One thing he has learned, says Roscoe, is that farmers and chemical engineers who run oil companies both tend to be production specialists unconcerned about selling. This is bad for the oil companies, he concludes, because "right now, marketing is the number one problem for the oil companies." Instead of recognizing this, though, most have been reducing their marketing staffs to "minimal levels."

Roscoe believes the years ahead will see a "rebirth of effective and efficient gasoline marketing" in the U.S. But his concept of "effective and efficient" marketing should strike fear in the hearts of those who believe pre-1980s-type gasoline marketing will some day return.

In his 1982 report about oil companies' past-year performance, Roscoe asked: "What will the margin on a gallon of gasoline be in the future?" His answer was:

"What is the price differential in a given location that is necessary to develop 400,000 gal. of gasoline...a month? What is the value of 40,000 customers to a multiline retailer? The margin...will hinge on this value. In the short run at least, this is possibly a negative margin. In the long run, it may be 2¢ a gallon."

Roscoe believes the multi-line type of gasoline retailer will build new competitive pressures into existing stand-alone units and force their modification, closure or subsidization. He says he can't understand why some oil companies subsidize stations and lose money in marketing. The cost of subsidization to maintain market share is likely to be "very great" in the 1980s, he adds.

Roscoe's opinions of the gasoline business are of special interest, because he looks at it from the C-store owner's viewpoint. Quite a few gasoline marketers who are into C-stores seem to agree with most of his observations.

While most oil marketers might question Roscoe's assertion of operating on a "negative" margin, or maybe 2¢ gal. "in the long run," they agree a multi-line retail facility can get by on a far lower fuel margin than can most gasoline-only facilities.

Increasingly, marketers with store facilities see a relationship between high-volume gasoline sales and store sales. Says Roscoe, "When a great volume of gasoline is sold, it develops a great amount of customer traffic that can be of value to a multi-line retailer."

With such a dual purpose for attracting lots of customers, the multi-line retailer is usually the low-price leader at his pumps in a given market. Chances are, he also has the best-looking retail facilities, because he knows that helps attract customers.

It is possible that some low-investment innovation for selling gasoline will come along to upstage the expensive multi-line facilities. For now, though, they seem to be in the driver's seat, making it tough for traditional stand-alone units to compete. ***NPN 75th***

# • MARKETPLACE AT A GLANCE

### AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

| NOVEMBER | Gasoline (All types) | Leaded Regular | Unleaded Regular | Leaded Premium |
|---|---|---|---|---|
| U.S. City Avg. | $1.224 | $1.156 | $1.241 | $1.356 |
| Regions: | | | | |
| Northeast | 1.253 | 1.186 | 1.256 | NA |
| North Central | 1.250 | 1.199 | 1.273 | NA |
| South | 1.206 | 1.135 | 1.218 | NA |
| West | 1.191 | 1.107 | 1.214 | 1.351 |

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

### STOCKS (Add 000 bbl.)

| | 12/30/83 | 12/31/82 |
|---|---|---|
| **Gasoline (total)** | 232,464 | 240,564 |
| **Gasoline (unleaded)*** | 96,057 | 96,861 |
| **Jet Kerosine **** | 34,133 | 32,230 |
| **Distillates** | 148,802 | 179,869 |
| **Residual** | 50,872 | 67,187 |

**Included in gasoline total.*

***Jet kero only; totals no longer kept by API or DOE.*

*Source: American Petroleum Institute.*

NPN

NATIONAL PETROLEUM NEWS FEBRUARY 1984

# Post-Embargo Station Shakeout Continues; Optimal Level Estimated Same as in 1930s

**Fresh government statistics confirm that the service station shakeout that began back in 1973 continued unabated through 1983, with more outlets than anticipated vanishing from the nation's streets and highways in that 12-month period.**

The new population total for the end of 1983 is 136,570. This is 2,680 units less than had been projected last January when the annual government forecast stated it would be 139,250 stations on Dec. 31 [NPN—Feb '83, p27].

Not only that, there's no end in sight for the service station crunch. The government forecast for 1984 is that the total will shrink anew to 130,000 stations by next Dec. 31. That would be roughly equal to the population in the early 1930s.

The current situation is tinged with irony for *NPN* as it observes its 75th anniversary. During most of the magazine's history, the service station story was one of near-continual building, with competing outlets and brands on all four corners of many streets and intersections.

There was almost a frenzy during the 1950s and 1960s when the net additions were counted in the thousands. Today, it's the other way around, and the population is going down at a faster rate than it ever was built up.

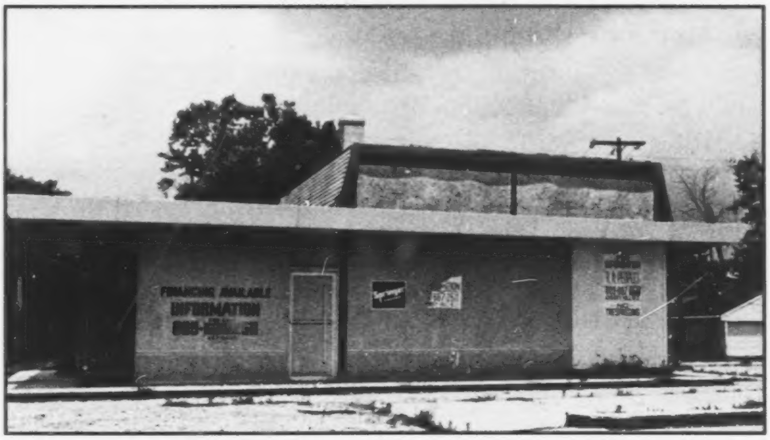
All is not gloom in this negative report, however.

For example, there is no shortage of service stations, despite the fact the number of automobiles, trucks and buses on the road is at an all-time high—more than 165-million vehicles now and increasing annually.

The stations that are disappearing are generally on the smaller side—30,000 to 40,000 gal. month. In their places are being built the big super-stations—the 100,000-to 200,000-gal.-month-plus pumpers that are more economical to operate and frequently are on a seven-day, 24-hour basis. Most are self-service stations, which seem to have greater appeal to motorists everywhere.

The industry is spending billions of dollars on new marketing facilities and programs as the majors and the minors reposition themselves and intensify their competition for gasoline gallonage [NPN—Dec. '83, p27].

McGraw-Hill's annual survey, issued in mid-November, said the oil companies had projected marketing expansion and development expenditures of $2.1-billion in 1983, $2.6-billion in 1984 and $2.8-billion in 1985—a three-year total of $7.5-billion.



**Per-station sales in '84 may be 2.5% above '83's, but 6,500 units will close up.**

These are among the highest investments ever targeted for marketing facilities, and they come in an era of gasoline surpluses, depressed prices and margins, cost-cutting, alcohol additives, and regrouping by all in the marketplaces.

The government report states the dollar sales at service stations slipped slightly in 1983—down a little less than 1% below 1982's total of $104.6-billion for gasoline and oil products and services only.

The 1983 total was put at $104.6-billion. It was far, far below the rosy projection of $114.5-billion that was made last January for 1983, however. The economic recession and the sharp drop-off in pump prices were to blame for this.

The 1984 outlook is mildly optimistic. Dollar volume at the service stations is expected to exceed $106.2-billion by the end of this year. That would be an increase of 2.5% over 1983, which would parallel other economic forecasts of minor to moderate growth in 1984.

The service-station data are compiled by the Bureau of Industrial Economics of the U.S. Department of Commerce as part of its annual report on franchising activities in the U.S. Copies of "Franchising in the U.S. Economy, 1982-1984," are available from the Superintendent of Documents in Washington D.C.

The BIE is somewhat of a sister organization to the U.S. Bureau of the Census, which also is a section of the Commerce Department. The Census Bureau took its quinquennial survey of retail businesses in 1982 but is still struggling to get the data ready for publication. Some may be available over the next several months, but complete state-by-state details probably

## Station Count Down Yet Again

| | 1984 | 1983 | 1982 | Percent Changes 1983-84 | Percent Changes 1982-83 |
|---|---|---|---|---|---|
| Number of establishments | 130,000 | 136,570 | 144,690 | −4.8% | −5.6% |
| Company-owned | 23,400 | 24,583 | 26,044 | | |
| Franchisee-owned | 106,600 | 111,987 | 118,646 | | |
| Total sales of products and services (000,000) | $106,175 | $103,587 | $104,633 | +2.5 | −1.0 |
| Company-owned | 19,112 | 18,646 | 18,834 | | |
| Franchisee-owned | 87,063 | 84,941 | 85,799 | | |

Source: Bureau of Industrial Economics, U.S. Department of Commerce.

will not be out before the end of the year.

The BIE service-station totals are in keeping with the standards used by the Census Bureau, i.e., to be classified as a service station the facility must get 50% or more of its income from the sale of gasoline and oil products.

Arbitrarily excluded from these totals, therefore, are the thousands of pumps and stations at convenience stores, mass merchandisers, fleets and other places. The C-store world alone has a population close to 50,000, and it is estimated the almost half of these currently sell gasoline.

Last fall, the *Lundberg Letter* estimated the service station universe at 210,875 units. These would be the places where any motorist could drive in and buy gasoline. Industry sources regard the Lundberg estimate as an accurate report on the number of outlets on the American scene.

The BIE data showed that its service station population declined 5.6% in 1983 and is expected to drop another 4.8% in 1984.

If these percentages are applied to the Lundberg universe, then, it logically could mean that the total population at the end of 1983 was down 11,809 stations to 199,066; and will be down 9,555 stations more to 189,511 stations at the end of 1984.

An interesting offshoot of the BIE numbers is that as the service station population shrinks, the business volume per station theoretically increases because there are fewer of them to share the pie.

Thus, if the 1984 volume of business is projected at $106.2-billion and is to be split among 130,000 stations, the average per station would be $816,900. For 1983, it would be $103,6-billion and 136,570 stations, or an average of $758,500 per outlet. For 1982, the numbers were $104.4-billion and 144,690 stations, or $721,900 per station.

The U.S. service station population has been in a nose-dive since the Arab embargo days of the early 1970s. The peak population year (Census Bureau basis) was 226,500 stations in 1972.

The shake-out started in 1973 as supplies dried up and thousands of "Mom and Pop" outlets simply couldn't get enough gasoline to stay alive. By the end of 1974, about 30,000 stations had dropped out of the picture.

There has been no let-up in the interim slump. By 1977, the crunch had eliminated 50,000 stations and, by 1980, the number had risen to 75,000 stations.

Today, with 136,570 still in business, the 1983 population is down about 40% from the 1972 peak. By the end of 1984, it will be off 43%. In all, however, it will be like a fat man who has lost the flab around his waist—leaner, stronger and in a healthier position to do more business than ever.

## Sales of TBA, Service To Rise 9% This Year

**Auto products and services—a sort of catch-all in the Commerce Department's franchisee reports—didn't fare as well as expected in 1983 but continued to gain ground nevertheless in the number of establishments and the volume of sales.**

The slowdown reflected the general retrenchment of business over the past two years.

This year's Bureau of Industrial Economics forecast put the 1984 total of establishments at 38,660, up 3.8% from last year's total of 36,614. Last January's forecast anticipated the 1983 total to be 41,496.

Sales of products and services were up significantly, however—8.1% in 1983 and an expected 9.3% in 1984. The projection for 1984 is $9.8-billion, versus $8.9-billion for 1983. These sales, however, include some non-automotive products, such as household appliances and garden supplies.

The category includes tire stores, car washes, parking services, brake parts and diagnostic shops, lube and oil change centers as well as others that specialize in the sale of aftermarket equipment.

### TBA Product Sales Look Good for '84

| | 1984 | 1983 | 1982 | Percent Changes 1984-83 | Percent Changes 1983-82 |
|---|---|---|---|---|---|
| Number of establishments (a) | 38,660 | 37,241 | 36,614 | 3.8% | 1.7% |
| Company-owned | 4,358 | 4,275 | 4,233 | 1.9 | 1.0 |
| Franchisee-owned | 34,302 | 32,966 | 32,381 | 4.1 | 1.8 |
| Total sales of products and services (000,000) (b) | $9,782 | $8,949 | $8,278 | 9.3 | 8.1 |
| Company-owned | 3,052 | 2,828 | 2,610 | 7.9 | 8.4 |
| Franchisee-owned | 6,730 | 6,121 | 5,669 | 9.9 | 8.0 |

(a) Includes tire battery and accessory stores, auto and truck wash services, and brake and muffler repair and services.
(b) includes sales of non-automotive products such as household appliances, garden supplies, etc.
Source: Bureau of Industrial Economics, U.S. Department of Economics, "Franchising in the Economy, 1982-1984."

## C-Store Growth Differs By Type of Ownership

**Although the convenience store universe appears to be growing steadily, the much smaller world of franchised convenience stores seemed to be in a quagmire last year where its population is concerned.**

The universe generally is credited with having 50,000 or so stores, of which a little less than half sell gasoline and other oil products.

The Bureau of Industrial Economics of the U.S. Department of Commerce—which concerns itself only with the franchised companies—revised its numbers considerably in the 1982-84 report which it recently released.

A year ago, BIE projected a population of 16,256 franchised stores at the end of 1982, and 17,276 stores at the end of 1983 [NPN—Feb. '83, p28]. The new report downscaled these projections to 15,818 for 1982 and 15,086 for 1983. It predicts a total of 15,867 by the end of 1984.

The recession and the high cost of money had much to do with the retrenchment in 1983, as did the fact that one or more companies abandoned franchising operations in 1983.

Despite the fact that the number of franchised units seemed relatively static, sales volumes were not. The 1982 total was $9.8-billion; $10.2-billion for 1983; and $11.3-billion for 1984. Both 1982 and 1983 volumes were higher than had been forecast—by almost $600-million in 1982 and $8-million in 1983.

### Franchised Stores in '83: A Muddled Year

| | 1984 | 1983 | 1982 | Percent Changes 1983-84 | Percent Changes 1983-82 |
|---|---|---|---|---|---|
| Number of establishments | 15,867 | 15,086 | 15,818 | +5.2% | −4.6% |
| Company-owned | 8,821 | 8,436 | 9,517 | 4.6 | −11.4 |
| Franchisee-owned | 7,046 | 6,650 | 6,301 | 6.0 | −5.5 |
| Total sales of products and services (000,000) | $11,279 | $10,177 | $9,818 | 10.8 | 3.7 |
| Company-owned | 6,760 | 6,094 | 6,119 | 10.9 | −0.4 |
| Franchisee-owned | 4,519 | 4,082 | 3,698 | 10.7 | 10.4 |

Source: Bureau of Industrial Economics, U.S. Department of Commerce, "Franchising in the Economy, 1982-1984."

# Market Faces Trials in Maturing Years

**AT the beginning of the 1970s, a person could drive across the United States on 25c gasoline, if he shopped a little along the way. Supply was no problem.**

By late 1973, the price at the 'gas' pumps had doubled, and people were waiting in long lines at supply-short stations. The nation's long joy ride on cheap energy had come to an end. Neither it nor the oil industry would ever be quite the same again.

At first, oil marketing profited from the sporadic supply shortages and soaring prices of the 1970s. By the beginning of the 1980s, however, the industry again faced a serious problem.

For the first time in the memory of most present-day oil marketers, they faced a shrinking market with excess capacity. "We have had excess capacity before, but it has always been in a growing market," says one marketing VP. "Somebody is going to have to get out of the market."

Quite a few oil marketers have been getting out since the flush days of the Seventies, and there have been dramatic cutbacks in facilities.

## The Shrinking Marketplace

Despite soaring prices in the 1970's, Americans kept increasing their gasoline and distillate purchases through 1978. Between 1970 and 1978, gasoline consumption increased 30.5% to 116.7-billion gal. Distillate demand was up during this same eight-year period some 35.7% to 52.8-billion gal.

But by 1981, the average retail price for gasoline in the U.S. had hit $1.31 gal., and distillates were up to almost $1.25. This represented a 267.3% increase in gasoline prices since 1970 and a 574.6% hike in distillates. Consumers began to cut back their buying of both products.

Domestic gasoline demand is currently running about 1-million b/d below what it was in 1978. Distillate demand in late 1983 was lagging about 700,000 b/d below its 1978 peak.

The gasoline demand slump is what really concerns marketers. Most experts don't see much improvement in gasoline demand now through the 1980s and possibly beyond.

This is the major reason most large oil companies today are sharply reducing their sales staffs and trimming back their refining and marketing facilities.

Marketers had begun culling out unprofitable service stations with the first supply shortage in 1973-74. With the end of federal price and supply controls in early 1981, jobbers and major company sales staffs became cutback targets.

Oil shocks and 'gas' lines of the '70s had a profound effect on the motoring public . . .

The
STINKER
CUT
RATE
GAS
GOLD
STRIKE
STAMPS

. . . while indies exploited their 2c to 3c gal. advantage over branded marketers.

There has been considerable shrinkage within the industry so far in the 1980s, and most experts predict there is more to come.

The U.S. Department of Commerce estimates that the total number of service stations dropped from a peak of 226,459 in 1972 down to 139,250 in 1983, a decline of 87,209. And, while some private industry sources peg the gross numbers at a higher level, the percentage fallout is comparable.

Refinery capacity continued growing until the 1980s but has dropped dramatically since then. Total operable capacity was 16.9-million b/d in 1983, down 1.7-million b/d from 1981, according to the American Petroleum Institute. API says the number of refineries dipped from 315 in 1981 down to 233 last year.

The National Oil Jobbers Council has estimated that between the end of 1980 and 1982, the "universe of independent petroleum marketing companies" decreased by "more than one-third." It put the "universe of jobbers" operating at the end of 1982 at 15,160 companies.

Private-brand independents also have felt the pinch from increased price competition and lower demand. Michael S. Kirschner, president of Kirschner Bros. Oil Co., Philadelphia, and '84 president of the Society of Independent Gasoline Marketers of America, believes the number of private-brand independents in business today is down a "minimum" 25-30% from four or five years ago.

There have been dramatic reductions in most major company marketing staffs, too, and a new trend toward "centralizing" staff operations again. This has caused the closing of many district and regional offices.

Most companies, too, currently are operating in fewer states than they were in during the 1970s.

## OPEC Power

By the summer of 1973, oil marketers knew that something big was about to happen.

For a year, private-brand independents had been experiencing trouble in keeping their supply lines open. The excess supply that had always been available to them, often at cut-rate prices, had dried up.

Refiner-suppliers were putting their branded jobbers and dealers on allocation. Price protection was being pulled.

At a National Petroleum Refiners Assn. convention that year, a traditional breakfast meeting of supply and exchange people was crowded with private-branders, brokers and others searching for product.

"If a man stood up in here and shouted that he had 50,000 bbl. of gasoline to sell, he'd be trampled to death by people trying to get to him," observed a refiner in attendance.

By June, it was estimated that a gasoline supply shortage ranging from 300,000 to 400,000 b/d existed. The American Petroleum Institute issued a study projecting U.S. demand for oil would reach 31-million b/d by 1985. It said 17-million b/d would have to be imported to help meet this demand. At the time, imports were running 3.4-million b/d.

Tight supply was already the main topic of conversation at jobber meetings. "I've waited 30 years for a tight supply situation. When it comes, prices are frozen, and we can't enjoy it," said one jobber.

That summer was a time to get full profit-margins and clean up markets.

"Share of the market is out. Profitability is in," said a marketing vice president. "We're getting rid of all the evils that have crept into marketing since the U.S. Supreme Court broke up the Rockefeller monopoly," said another.

Almost nobody at the time, however, was talking about events taking place in the Middle East.

Over there, international oil companies were in the process of losing control of oil concessions they had held for nearly 50 years. The 12-year-old Mid-East oil cartel then decided to flex its muscle in a way that made the old Standard Oil trust schemes look feeble—it sprung its first "oil shock" on the free world.

On Oct. 17, 1973, the Organization of Arab Petroleum Exporting Countries (OAPEC) authorized an embargo of oil shipments to the United States and Holland in retaliation for their support of Israel in that year's Middle East war.

One day later, the Organization of Petroleum Exporting Countries (OPEC) enacted a 70% price increase—from $3.01 to $5.12 bbl.

On Oct. 20, the oil embargo started. By Christmas Eve, with motorists already waiting in line at service stations, OPEC boosted its price again, this time to $11.65 bbl.

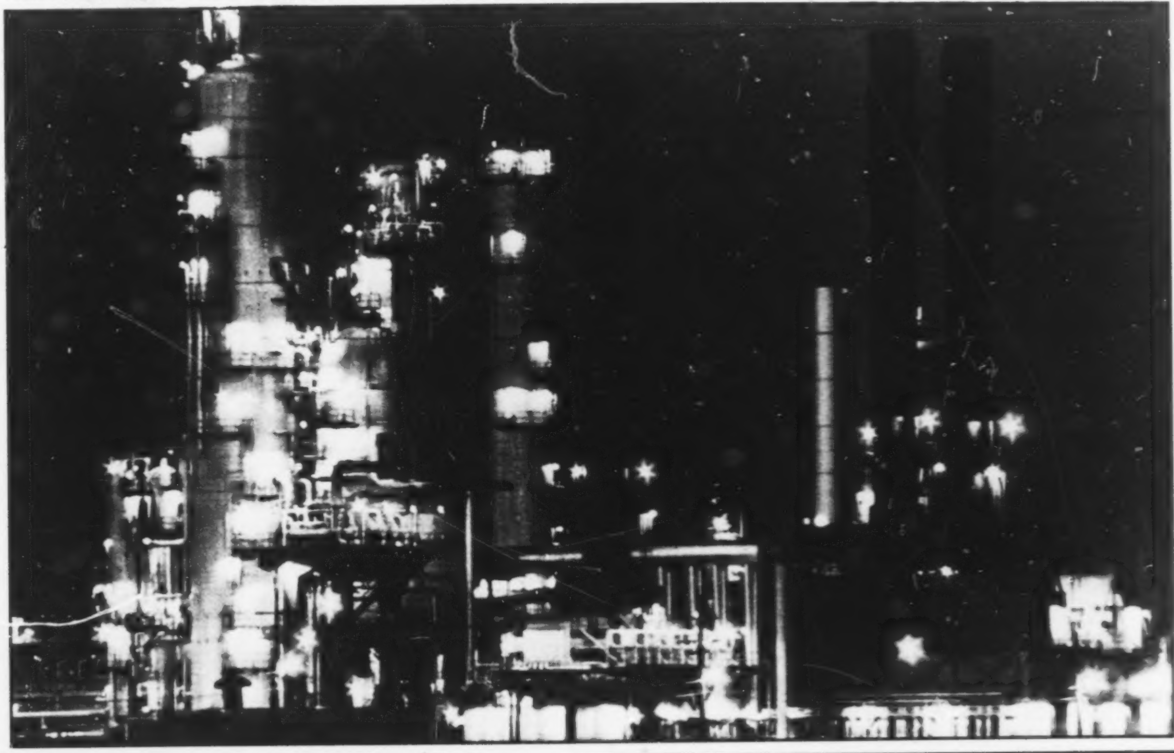
OPEC now had full control of world oil prices and had set in motion the biggest transfer of wealth in the world's history. Crude oil prices would soar as high as $40 bbl. by the late Seventies.

OPEC's pricing actions—at that time and later—struck the free world a stunning blow. Oil-consuming nations couldn't help but pay whatever price OPEC decided its oil was worth. Rampant inflation, high interest rates, recession and unemployment were to follow throughout the free world.

In the United States, immediate reaction was that the whole thing had been engineered together by OPEC and the big oil companies to "rip off the public" with high oil prices.

Congress began calling for hearings to investigate the industry's "obscene profits." Sen. Walter Mondale charged that the oil companies "have worked out special deals with the Arab sheiks to jack up their foreign tax credits." Sen. Abra-

**After the embargo, consumers adjusted to markedly higher prices, pushing refinery runs to a 116.7-billion gal. peak for gasoline in 1978.**



ham Ribicoff charged the industry with "cheating the U.S. public."

### The First Big Shock

Ten years ago this month and with motorists across the country fuming in gasoline lines, the oil companies' fiscal 1973 profit reports came in, and a public outcry rang out.

Exxon reported its 1973 net profits were $2.44-billion, the highest ever made in a single year by an industrial company in the United States. Texaco reported its net earnings had hit $1.6-billion. Many other companies reported increases in the 50% range, and some exceeded 100%.

"I'd like to correct the impression that we have excess profits," Exxon Chairman J.K. Jamieson told a group of 80 reporters assembled in a teak-paneled, blue-upholstered conference room at its New York headquarters building. "That's absolutely not true."

Texaco explained in full-page newspaper advertisements that it had invested $1.6-billion in 1973 to "help fill your energy needs."

Mobil Oil, whose $84.2-million profits represented a 47% gain over 1972, explained in advertisements that it had just spent $271.1-million on a federal lease in the Gulf of Mexico.

To wit, companies were having lots of explaining to do.

Although OPEC began dictating what its crude prices would be, everybody else who owned crude oil became several times richer almost overnight as the prices began to soar. Domestic crude oil prices had been put under federal controls, but postings everywhere else were rising to what OPEC said the world price was.

While a few industry voices had warned that the nation was becoming too dependent on foreign oil, they had been largely ignored. By late 1973, with demand for petroleum products soaring, the nation was importing 35% of its roughly 6-million-b/d needs. About 1-million b/d of this was coming from Arab sources.

Then, suddenly the Arab members of OPEC called for the embargo. Imports from Arab sources dropped to 18,000 b/d, and OPEC oil prices skyrocketed to 10 times their level only two years previous.

Price controls had been put on the oil industry earlier by the Nixon administration in hopes of slowing inflation. Oil marketers suddenly found themselves with a market in short supply but no way to take full advantage of it, legally.

Roughly 25,000 service stations were closed by December, as the cars began lining up for gasoline. Others that remained open did so for only a few hours a day. Jobbers scrambled for supply, but this was difficult to come by.

By March 1974, just as the oil companies were beginning to report record profits, the supply shortage was beginning to ease. The long gasoline lines disappeared almost overnight, even while some oil company and government leaders were warning the shortage might last a year or two, even longer.

The industry had a big credibility problem, with the public confused and suspicious over what had happened. By March, the government had allowed dealers to pass through their higher product costs, and gasoline prices were 30% higher on the street. Then, the supply "shortage" ended.

CITIZEN/LABOR
ENERGY COALITION
UAW
SAYS:
STOP
OIL
RIPOFFS
NPA

Excessive oil profits and later, $1 gal. fuel spawned angry protests.

Somehow, many consumers felt, OPEC and the major oil companies had contrived to create an artificial supply shortage and hike prices.

### The Second Shock

But motorists and homeowners soon became accustomed to the higher prices. They resumed consuming just as much oil as ever. *Much* more, in fact. By 1978, the nation was consuming a record 116.7-billion gal. of gasoline and 52.8-billion gal. of distillates.

Then, the Iranian revolution shut off part of the Middle East oil once more. By then, the nation was having to import 43.5% of its total domestic oil requirements. Prices went through the roof again.

Regular-grade gasoline that had retailed for a nationwide average price of 35.69¢ gal. in 1970 had soared to 63.07¢ by 1977. By 1979, it was up to 87.79¢ and by 1980, was $1.2172. The nationwide average hit $1.311 in 1981, but by then, American motorists had begun to slash their purchases.

Since 1981, gasoline consumption has continued to fall and so have prices. Average pump postings dropped about 9¢ below their 1981 peak in 1982.

Heating oil prices went through about the same pattern, topping out in 1981 at $1.2466 gal.

### Jobber's World Changes

Before OPEC plunged the free world into its first big supply disruption, mar-

**Distributors Before/After Oil Shocks . . .**

| | 1972 | | | 1983 | | |
|---|---|---|---|---|---|---|
| Company | Jobbers | Agents | Total | Jobbers | Agents | Total |
| Amoco | 617 | 3,176 | 3,793 | 1,961 | 2 | 1,963 |
| Arco | 1,103 | NA | 1,103 | 189 | 0 | 189 |
| Cities | 484 | 216 | 700 | 350 | 0 | 350 |
| Conoco | 935 | 601 | 1,536 | 830 | 0 | 830 |
| D. Shamrock | 131 | 2 | 133 | 150 | 1 | 151 |
| Gulf | 1,116 | 1,170 | 2,286 | 1,715 | 49 | 1,764 |
| Exxon | NA | 145 | 145 | 972 | 3 | 975 |
| Marathon | 89 | 0 | 89 | 79 | 0 | 79 |
| Mobil | 2,623 | 306 | 2,929 | 1,996 | 36 | 2,032 |
| Phillips | 1,699 | 303 | 2,002 | 1,693 | 2 | 1,695 |
| Shell | 1,130 | 77 | 1,207 | 612 | 0 | 612 |
| Getty/Skelly | 1,058 | 117 | 1,175 | 582 | 0 | 582 |
| Socal/Chevron | 139 | 551 | 690 | 777 | 87 | 864 |
| Sun | NA | NA | NA | NA | NA | NA |
| Texaco | NA | NA | NA | 1,176 | 6 | 1,182 |
| Union | 612 | 581 | 1,193 | 431 | 27 | 458 |

keters in the U.S. were moving lots of gasoline and distillates but at very little profit, especially for refiners.

Gasoline consumption in the U.S. soared some 15.2-billion gal. between 1970 and 1973. According to one estimate, 90% of the people were taking vacations by car, averaging 2,120 miles per vacation trip and consuming 150 gal. of gasoline.

Branded jobbers in 1971 and 1972 were paying about 13¢ to 14¢ gal. for gasoline, and the branded dealer tankwagon price hovered between 17¢ and 18¢. Both prices were too high to compete with private-brand independents, who could usually buy product at least 2¢ gal. below the branded jobber price.

Because the independents usually had greater operating efficiencies than their branded competition, they usually could undersell suggested major brand retail postings by 4¢ to 6¢ gal.

To protect their branded jobber and dealer networks, most major companies had competitive price protection plans. Typically, a company would absorb 75% of retail price drops down to a certain level, then guarantee the jobber and dealer a floor or "stopout" margin. These floors, on the average, were 2.5¢ for jobbers and 4.5¢ for dealers.

Most marketers today admit this system was abused. It helped to start and prolong price wars.

According to one *NPN* estimate suppliers paid out more than $1-billion in competitive price supports in 1970.

Smaller majors in the early 1970s began searching for a new way to price their gasoline to jobbers and dealers. "A new method must be found," said a Phillips marketing executive. His company had a 0.17% return on refining and marketing in 1971 and 1.92% in 1972.

"We could go across the street and do a lot better in a savings and loan bank," G. J. "Pete" Morrison, marketing vice president, said.

By late 1971, companies such as Conoco, Cities Service, Phillips, Amoco and Mobil were testing various types of "new" pricing plans. Conoco had started this trend with a "rack" pricing program in Texas' Rio Grande Valley.

Some of the large majors weren't as excited about these tests or convinced of their need as were the smaller ones. The big companies were concerned that the plans—basically involving the elimination of price supports—would cause them to lose jobbers and dealers.

But at one company where a new plan was being studied, a vice president brushed aside such concern for jobbers. "---- 'em," he said. Such executives felt the drain on profits had become too much to continue under the old DTW system.

Decontrol in 1981 ended price protection, as well as market restraints.

Some of the initial attempts to convert to rack or terminal pricing collapsed when supply tightened and margins improved. Next came federal controls with the Arab oil embargo of 1973-74, and all the old pricing systems were frozen in place until the controls ended in early 1981.

### Bureaucrat's Heaven

The disruption of supply created a dream world for hordes of Washington bureaucrats. It was not hard to slap a voluminous, complex and often contradictory set of controls on the industry.

Washington's avowed purpose was to see that scarce supplies were shared equally and that the public wasn't gouged on prices. The intent was noble, but the overabundance of regulations that flowed from the bureaucrats often helped cause supply outages and higher prices.

Overall, they worked well for the less-aggressive marketer. He was "guaranteed" a certain amount of supply at the same discount of whatever the DTW price was that he had been given before controls.

Some jobbers didn't bother to update their marketing facilities or expand. In addition to the expense involved, there was always the red-tape of getting supplier and government approval for expansion. In some cases, a retail operator was even supposed to get approval from his competition before building a new station.

Often, many found, it was easier to just sell their allocated supply to other more aggressive marketers.

The aggressive marketer just worked his way around the red tape, however, and continued to expand and grow. At times when margins shot up to 10¢ or 15¢ gal., the non-aggressive ones did well, and the aggressive ones did very well. Some of the latter, in fact, became very rich.

But oil marketers had other problems from Washington to contend with during the Seventies. Many other government agencies were crawling around their businesses to ascertain if they were complying with environmental, employee safety, and various other regulations. Refiners had to start making unleaded gasoline, trucks and bulk plants had to be specially equipped to control fuel vapors, and the environmentalists pushed for expensive vapor control systems at service stations.

### New Era Begins

When the federal controls governing price and supply were lifted in early 1981, the jobber's world started changing again. Indeed, it was a new ball game for all of refining and marketing.

Since decontrol, most refiners have gone to some variation of terminal pricing. The margin "guarantees" and competitive price protections of the past have been pretty much discarded for jobbers.

In addition, most companies have tightened up what were once liberal credit policies, many have abandoned the idea of "free" credit cards and most have instituted other changes in programs which once helped the jobber.

While reducing the jobber's traditional benefits, many companies have taken a tough stance in the retail market. This has caused considerable ill-feeling among both branded and unbranded jobbers toward the larger refiners, and has led to threats of attempts to obtain "legislative relief."

Both branded and unbranded jobber groups accuse the major companies of trying to drive them from the marketplace.

The majors counter that many of the things they once "gave" jobbers are obsolete in today's marketplace. They contend that their marketing departments are being called on to make greater profit contributions to help their companies finance the ever-increasing cost of finding more oil.

The jobbers, or at least most of them, say they can understand a major company's need for profits. But many question the street tactics of some.

Whether they prefer the old or the new world of marketing, the majority agree that conditions have changed. Indeed, oil marketing continues to change—maybe for better, maybe for worse . . . but certainly for all time.

# How Petroleum Products Got Moving

**By Tim Grace**
**Staff Reporter**

**THE distribution of petroleum products has become faster, easier, but more expensive since 1909, when railroad tank cars and barges were aided by the trusty horse.**

The transition from animal to machine began in 1909 when four of the Standard Oil companies began using tank trucks. The "transports" featured open cabs and 400-gal. railroad-type riveted tanks.

By 1913, payloads swelled with the introduction of the double-bottom welded tank, enabling an additional 150 gal. to be delivered. The new tank design cut tank weight almost in half and signaled the start of a continuing effort to increase payload and cut dead weight.

The use of tank cars and barges, while still the primary means of transportation, soon became less vital with improved roads and, later, interstate highways.

The introduction of aluminum tanks and chassis in 1929 boosted payload an additional 20%, and tandem rear axles increased double-bottom capacity to 6,200 gal.

Additional payload proved beneficial to jobbers, but the development of bigger tractors and tanks was threatened during the Thirties. Then, Interior Secretary Ickes publicly complained about increasing truck size and lowered safety.

"The lord of the highway is the truck driver," said Ickes, addressing the American Automobile Assn. in 1939. "The monster which he drives . . . each year seems to be growing longer and wider and higher. And, if one truck isn't big enough to satisfy the road appetite of its owner, he can always attach a trailer."

Ickes concluded, "I have promised someday to give myself the pleasure of driving down a truck-infested road in the biggest armored tank that I could find and bump these pests from the road."

Trucks survived both Ickes' tirades and the emergence of the pipeline as the primary means of product transportation.

Regardless of the mode of transportation, its cost over the years generally has increased more than rates of inflation. Numerous pieces of legislation at the federal, state and local levels have mandated the use of costly safety and environmental equipment. The regulation and subsequent deregulation of the trucking industry have increased costs even further. [See chart.]

The application of stage I vapor recovery systems on tractors during the Seventies added an estimated $2,300 to the cost of each unit, according to one tank manufacturer. The equipment includes vapor hoods, piping, fittings, extra hose and hose carriers and strong overturn rails. The specifications added some 500 lbs. deadweight at the expense of payload.

Bottom-loading tanks, anti-locking brakes, emission control devices and cab noise control devices that entered the picture during the Seventies also helped beef up transport costs.

Various excise taxes on trucks, trailers and tires, coupled with more recent increases in federal fuel taxes, also have hurt operators [NPN—Aug. '83, p47].

Tractor costs have doubled since 1971. By last year, transport costs had escalated to as much as $110,000 per unit—up from $36,000 in 1971, $41,500 in 1973 and $75,000 in 1978.

Jobbers who had looked at used trucks as an answer to higher costs, found no solace by the '80s when the cost of a used truck was as high as $40,000. Experts cautioned too that truck quality had not kept pace with price.

Operating costs for the trucking industry as a whole also have increased. A Hertz Corp. study showed that all classes of trucks in 1950 cost an average 12.11¢ per mile to operate, with yearly repair and maintenance costs adding up to $1,294. By 1972, the figures increased to 24.69¢ per mile or $3,028 per year. In 1981, trucks cost 79¢ per mile to operate and $8,380 in maintenance expenses.

These expenses have been counteracted to an extent by developments in equipment and materials. A significant 93% of jobbers surveyed by the National Oil Jobbers Council found it cost-efficient to own at least one transport.

As truck costs rise, so has the necessity to achieve maximum utilization of rolling stock. From the early days of 400-gal. riveted tanks, tank capacity increased to an average of 7,800 gal. by 1959 and to an average 8,900 gal. in 1983. National Tank Truck Carriers, Inc. (NTTC) cites the use of 11,000 gal. tanks in some states.

## Profitable Lightweights

Larger capacities are the result of continuing efforts to use lighter materials in tractors, tanks, accessories and parts.

Manufacturers, as early as 1939, were incorporating lighter alloy steels to maximize payload. More recently, aluminum has been used for tanks, bumpers, cab components, fuel tanks, hubs, transmission cases and wheels.

Manufacturers and transport owners realized that aluminum was worth its weight in gold during the late fifties. "After initial fire marshal objections to the early tanks, all majors dropped steel in favor of the lighter weight material, the last changing over by 1965," *NPN* reported in 1973.

With gross vehicle weight limits in the early Seventies lower than today's, jobbers realized the importance of making every pound count. Aluminum components saved 5,000 lbs. per vehicle, according to industry figures, allowing jobbers an extra 901 gal. per trip.

Even now, with a maximum allowable

**Double-bottom, riveted tank trucks of the 1910s allowed for larger deliveries.**

ATLANTIC
GASOLINE — MOTOR OILS
MOTOR OIL
ATLANTIC
GASOLINE — MOTOR OILS

PURE OIL COMPANY
COAL OIL GASOLINE
HIGH GRADES ONLY
OFFICE
PURE OIL
COMPANY

**Around the turn of the century, the 'horseless carriage' relied on the horse for fuel.**

weight of 34,000 lbs. for tankwagons, jobbers continue to use lightweight equipment in order to increase their payload.

Cost-cutting equipment now standard throughout the trucking industry includes plastic tractor components such as fenders, grills, fan blades and wind deflectors and air disc brakes.

Cabs and tanks made entirely with plastic did not live up to promises made during the Fifties. But steel-reinforced plastics soon began gaining acceptance.

"You'll gain at least 400 lbs. payload with reinforced plastic, instead of 20-gauge steel for truck cabs," said B.C. Harris, an engineer in charge of future designs for White Motor Co. in 1959.

Radial tires quite rapidly came to dominate the trucking industry. They are credited with saving jobbers thousands of gallons of fuel each year. Some now report savings of as much as 30% since switching from bias ply tires.

More attention currently is paid to the most important equipment on transport, the driver. A fleet maintenance manager told *NPN* in 1982 that drivers can affect fuel economy by as much as 25% by paying strict attention to idling time and shifting. This company coached its drivers to improve driving habits.

### Biggest Development Diesel

Over the past 25 years, the most significant development in truck efficiency has been the emergence of diesel as the fuel for transports.

Diesel tractors generally have required a larger initial investment, but jobbers have lauded their advantages since full-scale implementation in the late Sixties.

The predominance of diesel and the decline of the gasoline powered tractor was forecast in *NPN's* 50th anniversary issue by C. Austin Sutherland, then president of NTTC. He wrote: "As weights increase, and as daily mileage per vehicle increases, fuel and engine costs are likely to make greater use of diesel inevitable."

The price difference between gasoline and diesel fuel continues to increase, with diesel proving to be slightly more economical by the end of 1983.

Gasoline powered bobtail trucks, used mainly for heating oil delivery, average about 1 mpg. Diesel tractors are achieving nearly 6 mpg and showing promise of further economy.

Diesel engines, according to their users, also prove easier to maintain and perform for longer periods without the need for engine overhaul.

"In 10 years, we go through two gasoline motors or new blocks," said William Sortor, president of Sunrise Oil, Englewood, N.J. in 1974. "We haven't even had to resleeve the cylinder bores on any diesel."

Diesel powered tractors also have delivered more horsepower than gasoline engines. The extra power has proven useful with today's heavier loads and has added a safety dimension in hilly areas and on interstate highways.

Should the price of diesel increase dramatically, jobbers might convert to propane which traditionally has been less expensive than diesel.

### Preventative Maintenance

Jobbers have learned to cope with regulations, increasing truck costs and taxes through the use of preventative maintenance programs.

"A truck is wide open to problems if neglected," said Frank Snyder, a former trucking executive, in 1979. "Consistent checks tell you what the daily problems are before they get larger," he said.

The importance jobbers have placed on keeping accurate and detailed records is underscored by the fact that in recent years, many have installed computers to store pertinent information.

Other jobbers have replaced older trucks to save on repair costs. Renowned head of the old, San Antonio-based Sigmor chain, Tom E. Turner—also president of Mission Petroleum Carriers, Inc.—said in 1974 that 90% of his equip-

## How Transport Costs Have Risen

| | CPI# | Tractor/trailer cost* | ¢ per mile* |
|---|---|---|---|
| **1967** | 100.0 | $28,000 | NA |
| **1968** | 104.2 | 29,626 | 24¢ |
| **1969** | NA | NA | NA |
| **1970** | 116.3 | 29,334 | 26 |
| **1971** | 121.1 | 28,472 | 27 |
| **1972** | 125.3 | 27,166 | 28 |
| **1973** | 133.1 | 27,778 | 30 |
| **1974** | 147.7 | 30,733 | 38 |
| **1975** | 161.2 | 32,393 | 40 |
| **1976** | 170.5 | 30,516 | 41 |
| **1977** | 181.5 | 31,136 | 46 |
| **1978** | 195.3 | 35,678 | 53 |
| **1979** | 217.2 | 36,306 | 60 |
| **1980** | 236.1 | 36,886 | 72 |
| **1981** | 259.6 | 36,722 | 82 |

Source: Hertz Corp.

* Figures represent average expenses for all types of tractor trailer combos in terms of real, inflation-adjusted dollars. Cent-per-mile figures in current, non-inflated dollars.

# Consumer Price Index, using 1967 as the base year.

ment was less than two years old. Per-mile operating costs averaged 16¢ at Mission, not including driver insurance, license and taxes. Turner determined that average costs would increase to 23¢ per mile, if the tractors were overhauled and kept in service an additional two years.

Today's higher tractor costs, coupled with the emergency of in-frame overhauls—$9,000 less than conventional overhauls—has discouraged early vehicle replacements in more recent years.

### Common Carriers

Common carriers first became popular during the Twenties. "Independent marketers using trucks to haul their supplies from refineries and terminals found that they were making a nice profit," *NPN* reported in 1939." They began transporting for their brother marketers at rates well below those of the rails." It was reported that marketers still had comfortable margins and soon bought more trucks and devoted more time to the transportation end of the business.

Common carriers once were viewed as supplements to private fleets. They became more popular, however, as costs began to rise.

Kim Marshall, operations manager of Marshall Oil Co., Wake Forest, N.C., told *NPN* in 1977 that leasing tractors saved his company $77,000 the first year alone. Marshall did not have to hire mechanics and had his drivers perform repairs on his tankwagons.

Typically, in order to benefit from the use of common carriers, a jobber should be located in a metropolitan area. Rural jobbers need freedom of mobility associated with private fleets.

### Other Transportation

Trucks have been and remain the primary transportation concern of jobbers. Pipelines, however, have served as the chief means of moving product from refinery gates since the Fifties.

U.S. Census Bureau statistics show that in 1977, 52% of all petroleum products were being shipped by pipeline, compared to 29% by water, 14% by truck, 3% by rail and 1% by other means.

Pipeline growth came mostly at the expense of rail, being faster and far less expensive. For instance, the National Petroleum Assn. told *NPN* in 1939 that transporting refined oils by rail cost more than 2½ times the expense of pipeline shipment.

Since the Thirties when pipelines first began to thread the national landscape, physical and technological barriers gave way to environmental objections. Construction of the Alaskan Pipeline during the Seventies was delayed due to public concern for wildlife habitat. And, the Northern Tier project, which was to have run through Puget Sound in Washington to the Midwest, was scrapped last summer.

The year 1966 marked the arrival of the super-tanker, with California Texas Oil's Tokyo Maru hauling 500,000 bbl. of gasoline at $1.70 per ton. But despite the attractive transportation cost, few ports were able to accommodate a ship of that size.

Thus, the time-proven barge remains the dominant mode of water transportation for refined product even today. And, although pipelines deliver more product daily than the lumbering barge, petroleum is the number one commodity shipped on the nation's inland waterways—ahead of agricultural and steel products.

Railroads, the iron horse that built America, are no longer dotted with tank cars for hauling gasoline. Cheaper rates made possible by "jumbo" tank cars made the rails more attractive for some products, however. In 1959, Phillips and Sohio had ordered 22,000-gal. tank cars to haul products such as lube oil and petrochemicals. Conventional cars of the time had capacities of 8,000 to 10,000 gal.

### Bulk Plants

No matter how a product is brought from the refinery, it must be stored somewhere after it reaches its destination. Once the U.S. product pipeline network reached its current scale in the Sixties, few bulk plants were built. The fact is, pipelines themselves store a lot of product.

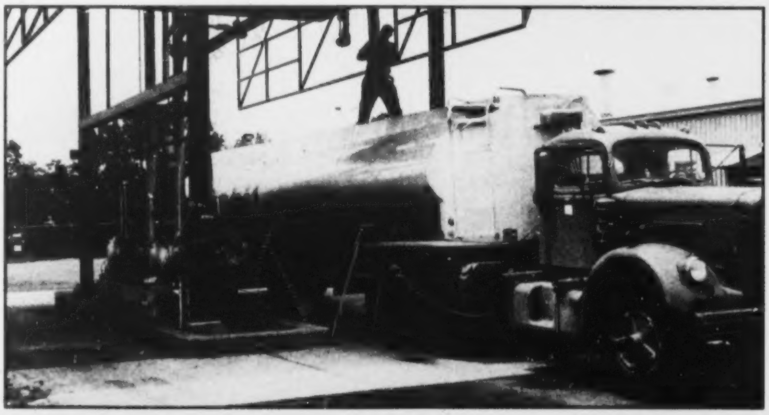
U.S. Census Bureau figures show 12,101 bulk plants in operation in 1981. Thirty years earlier, 28,320 plants were in operation.

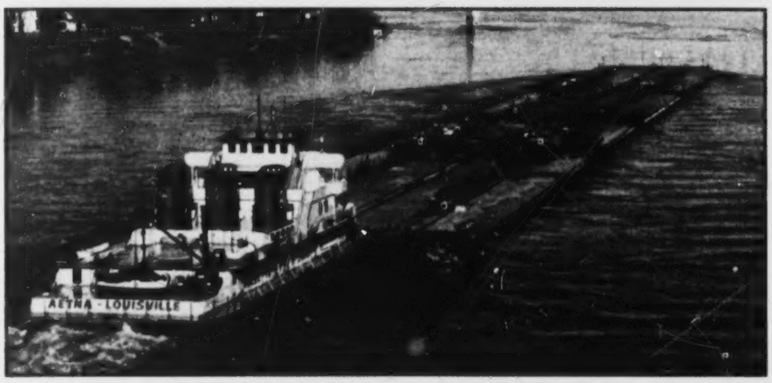
Although *NPN* reported in 1971 that bulk plant storage had been bypassed by the transport, bulk plants today remain an important link in petroleum storage and distribution in rural areas where jobbers face longer hauls. Thus, while the pipeline figures to remain the chief method of moving product in the coming years, with the transport being the primary means of secondary distribution.

The future of petroleum transportation, however, rests largely in the hands of government. Increases in gross vehicle weight limits and environmental regulations will dictate the industry's course over the next 25 years. NPN 75th

TEXACO
TEXACO

**Futuristic truck designs of the Thirties (right) begot the diesel-fueled models (below). This, while the age-old barge remains a viable means of transportation.**





# Heating Oil Survives Fight with Gas; Sulfur Laws, Embargo Bludgeon Resid

**By J. Richard Shaner**
**Executive Editor**

**FUEL oils never have been worshipped like gasoline or glorified with anything resembling the annual billions offered up in the name of motor fuel R&D and advertising. Nevertheless, they are much more important to petroleum's past, present and future than most industry people probably realize.**

Often fuel oils are shrugged off or ignored as the dirty necessities that command little attention or respect in the upper echelons of marketing management. There, just about everyone's attention is riveted to gasoline prices and street competition.

The record, however, makes that focus seem myopic. Middle distillates and residual fuel oil are and have been the industry's No. 2 and No. 3 products by volume. Or, to make the perspective a bit sharper, the No. 2 product by genre right behind gasoline is fuel oil.

In 1982, for instance, fuel oil accounted for 31% of the average crude barrel going through a U.S. refinery, compared with gasoline's 46%. All of the rest of the products combined accounted for only 23%.

What's equally significant, though, is the fact that the current market value of the two fuel oils still exceeds $65-billion a year. Not bad at all, considering the depressed conditions of recent years and that gasoline, although christened with cash outlays, is not that far beyond—a little more than $100-billion.

At this point in time, as *NPN* observes its 75th birthday, both gasoline and fuel oil have question marks on their futures. Where either or both will be in the good year 2009, when *NPN* celebrates its centennial anniversary, is strictly a guessing game right now. In fact, few among us could have guessed 75 years ago the turbulent years of growth and change that were to follow.

In 1909, when *NPN* was born in a little print shop in Cleveland, Ohio, oil's prime products were kerosine for illumination and lubricants for industrial machines. A gasoline market was beginning to emerge as the horseless carriages grew in numbers and importance.

Fuel oil's history dates back to World War I when the first of an increasing number of coal furnaces were converted to burn, in blast-torch style, a liquid product that was cheap, ashless and easier to handle than the bulky traditional fuels. It also was quite smelly and far from clean, but even this didn't deter its admirers who no longer had to shake furnaces several times a day or haul ashes out of the cellar.

### Whithering Heights

It would be nice to say that from these humble beginnings, fuel oil has been unstoppable and unbeatable as a space-heating fuel—its primary purpose in life until the past year or so. But alas, that's not true at all.

In 1920, about 12,000 householders were using oil to keep themselves warm and comfortable. In 1930, the number had skyrocketed to 650,000; in 1940, to 2-million; in 1950 to 5-million; in 1960 to 9.8-million; in 1970, to 12-million. The peak came in the mid-70s at 17-plus-million. But the total has been slipping since then, and it is now down to 11-million homes.

What caused oil heat's downfall was that old American trait, competition, and the seeming inability of an industry composed of thousands of distributors to compete with price-controlled natural gas and with the monolithic public utilities which spread-eagled their marketplaces and outspent them by millions of dollars, (especially in the new home construction field).

Prior to World War II, natural gas was available mostly in the areas adjacent to oil field activity—primarily the Mid-Continent and the Southwest, and the Appalachian chain in eastern West Virginia, Pennsylvania and New York. Low-Btu manufactured gas was the product in the northeastern quadrant where fuel oil had become king.

After the war, the government sold the "Big Inch" and the "Little Inch" pipelines—twin 36-inch and 30-inch lines. They ran from the Southwest to the industrial East and carried oil and products by land to escape the German U-Boat menace off the U.S. Coast. The lines were converted to natural gas, and great volumes of it came hurtling to the Atlantic seaboard and, in a parallel fashion, to the Upper Midwest.

These were high-Btu fuels, and, with the switch-over of kitchen ranges and tremendous promotion, they invaded traditional fuel oil markets like a bunch of runaway kids.

By 1958, natural gas had outstripped fuel oil on a national basis and was giving it hard times in its historic markets in the Middle Atlantic and Northeast. By 1982, natural gas had almost three times as many homes as fuel oil nationally.

But gas also had a competitor, electricity. The electric power companies outspent both gas and oil heat combined in

### Fuel Oil's Role as a Key Product

| [illegible] | [illegible] | [illegible] | [illegible] | Total | % of Total Prods. | Gasoline | % of Total Prods. |
|---|---|---|---|---|---|---|---|
| [illegible] | 5,364 | 927 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 4,202 | 776 | 587 | 1,363 | 32.4 | [illegible] | [illegible] |
| [illegible] | 3,610 | 685 | 559 | 1,244 | 34.5 | [illegible] | 41.9 |

(a) Estimated by Independent Petroleum Assn. of America.
Source: NPN Factbook and Energy Information Administration, DOE.

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nofi
CERTIFIED TECHNICIAN

promotion and, by the early 1980s, had amassed more than 14-million customers. But electric heat ran into big troubles when its consumer costs went right through the roof and it went into kind of a holding pattern in the early 1980s, although builders continued to favor it.

In the Northeast in 1982, fuel oil was still the No. 1 fuel but its hold was slipping. In the Middle Atlantic states, the Upper Midwest and the Pacific Northwest, oil heat's battle was an uphill affair.

During these years, fuel oil used up an increasing volume of petroleum's annual product.

In 1930, for example, distillate and resid combined required a little less than 350-million bbl. It was a half-million bbl. in 1940; almost 1-billion in 1950; almost 2-billion bbl. by 1970; and roughly 2-billion bbl. annually until the 1980s, when it began to drop off. In 1982, consumption of middle distillates and resids dropped to 1.6-billion bbl., the lowest level since the mid-1960s.

## Resid, a Shooting Star

The rise and fall of resid was probably the most dramatic development.

Distillate fuel oil consumption rose almost steadily through the years from 86-million bbl. in 1935 to 1-billion-plus in 1982. It dropped to 975-million bbl. in 1982 but was expected to get back over the 1-billion-bbl. mark in 1983.

Resid, on the other hand, went from 279-million bbl. in 1935 to 1.1-billion bbl. in 1977 before plummeting like a dying duck. By 1982, resid consumption had skidded to 634-million bbl., and it had been anticipated that the 1983 total would be only a little over 500-million bbl.

What happened to resid? Mostly price and environmental regulations.

Resid used to be a fairly cheap fuel for big complexes and commercial/industrial operations. In addition, resid had a higher Btu content than distillate—140,000 Btus per gal. to the latter's 100,000 Btus. Even though it required a pre-heating furnace, the economics were in its favor—8¢, 9¢ and 10¢ gal.

But with the embargo in 1973, resid prices skyrocketed, as did those of all other petroleum products. At one point, they weren't far below No. 2, in the $1 gal. range. At the same time, government pushed its environmental restrictions and limited the sulfur content of the fuel. This also resulted in price escalations.

The electric utilities, which were using almost a half-billion gal. of resid as recently as 1975, cut their consumption in half by 1982 and switched back to coal. Similarly, space heating, which had accounted for 154-million bbl. in 1975, dropped to 65-million bbl. in 1982.

The long-term outlook for resid is as gloomy and dark as the color of the fuel itself. Marine vessels are the biggest users of resid now but with this field contracting, there aren't too many ways to go.

Strange things are happening to distillate fuels too.

Historically, distillates were used as space-heating fuels. They went from a mere 54-million bbl. in 1935 to more than a half-billion bbl. in 1970. The wild price increases of the 1970s also hurt distillates as badly as they did resid. When fuel oil went over $1 gal., home owners switched to gas by the tens of thousands and/or instituted conservation programs that included better insulation, storm windows, and thermostatic controls which reduced the flow of heat by day to the 68-degree level and to the 60-degree level at night. Consumption fell off sharply as a result. Fuel oil reached the $1.30 gal. area before it began to recede.

By 1982, heating oil consumption had fallen to 325-million bbl., and the 1983 projections indicated this total would be less because the winter of 1982-83 was much warmer than normal and the last quarter of 1983 also was on the non-normal side.

## Transportation Demand Buoys Sinking Market

Almost like a Sneaky Pete, however, transportation needs for distillates have been growing rapidly in recent years. In 1979, for the first time, transportation—and this includes motor vehicles, trains and marine vessels—took a bigger cut of the distillate output than space heating for the first time in history.

It has been almost phenomenal since then. [See related story in this section.] In 1982, transportation's appetite for distillates stood at 47.7% of the total output, while heating oil's had declined to 33.3%. The 1983 ratio is estimated at 49% for transportation and 31% for heating.

But even more telling is the impact of diesel fuel for on-highway transportation alone. This too has been spiraling. In 1982, on-highway diesel fuel consumption exceeded 338-million bbl., versus space heating's 325-million bbl. Distillate fuels achieved a small comeback in 1983, but more of this went into highway diesel fuel than in space heating. So, this gap can be expected to be wider when the 1983 data are in.

Looking down the road, economist John H. Lichtblau recently made this interesting projection for the two fuel oils:

*(billions of bbl.)*

| | 1978 | 1983 | 1990 |
|---|---|---|---|
| Distillate | 1,241 | 986 | 1,132 |
| Residual | 1,095 | 511 | 584 |

Lichtblau, president of the Petroleum Industry Research Foundation, New York City, stressed that the increases for both distillates and residual fuel oils are not related to space-heating needs. To the contrary, he said, these are expected to decline further but that their losses will be offset by higher demand for diesel fuel, petrochemical feedstocks and specialty products where distillate is concerned, and a small growth in the industrial/commercial sector where residual is used. [See also Lichtblau's article on the crude oil market, page 128.]

All these negative things lead some economists and far too many industry people to accept the idea that fuel oil is a dying industry that is only running out its string.

There is a hard corps of believers within the industry, however, that refuses to accept this unwarranted death sentence. They feel, as they did in the 1960s and early 1970s, that fuel oil can retain its markets with technological breakthroughs in equipment and performance, with decontrol of natural gas which would close the price gap, and with collective promotion of the product as they did so successfully in bygone years [NPN—Jan. '84, p54].

They have some strong points in their favor.

## Allies' Response: NOFI

When the gas utilities began to make horrendous inroads in their traditional markets in the 1950s, the fuel oil people allied with equipment manufacturers and suppliers to support a new group known as National Oil Fuel Institute. The suppliers—at one point, more than a score were in the NOFI apparatus—provided most of the money for fuel oil's "matching fund" programs in which the national office matched the funds raised by local groups all over the country for oil heat promotion.

They were eminently successful in the early years, generating and inspiring cooperative/advertising and promotion programs, radio and television shows, traveling exhibits, consumer mailing pieces, media materials, even a consumer paperback book on their own, training schools and educational programs for technicians—a continuous flow of ideas and materials to fight the utility competition. There even were penetrations of the builders and contractors fields where gas and electricity had been capturing the homes of the future by having their equipment installed in the new construction and foreclosing oil as a competitor.

NOFI also took over a basic research program that had been under the sponsorship and direction of the American Petroleum Institute. It generated considerable interest on its own, strove hard but not successfully to get an oil-fired air conditioning unit, pushed blue flame burner development and encouraged inventors—some from overseas—to show up at special demonstration meetings with their "bread board" models which they hope to see developed.

NOFI's financing began to falter in the late 1960s, however, when refiners began to run into tax and internal problems on their support. They began to drop out, and by 1972, just before the Arab oil embargo,

## Distillates Level Out After Long Climb

### Distillate

*(Add 000 bbl.)*

| | | | | | | | | Diesel type | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Heating Oils | Industrial Use | Oil Company Use | Electric Utility Company | Railroads | Vessels Bunkering | Military Use | On-Highway | Off-Highway | Total Diesel | All Other | Total U.S. |
| 1982(a) | 324,912 | 71,340 | 29,482 | 12,134 | 93,150 | 33,885 | 15,201 | 338,006 | 37,118 | 375,124 | 19,639 | 974,864 |
| 1981(a) | 345,728 | 80,216 | 29,185 | 18,192 | 100,482 | 41,025 | 17,763 | 340,002 | 38,851 | 378,853 | 21,032 | 1,032,476 |
| 1980(a) | 393,112 | 86,089 | 24,205 | 31,812 | 102,022 | 35,201 | 19,138 | 323,431 | 51,705 | 375,136 | 19,994 | 1,086,709 |
| 1975 | 488,388 | 63,993 | 13,633 | 63,420 | 93,191 | 26,138 | 18,004 | 217,906 | 48,977 | 266,883 | 10,096 | 1,043,746 |
| 1970 | 521,135 | 43,668 | 11,518 | 24,770 | 88,416 | 19,503 | 12,447 | 148,796 | 46,123 | 194,919 | 10,874 | 927,250 |
| 1965 | 475,992 | 42,484 | 10,430 | 3,661 | 86,436 | 15,532 | 14,953 | 73,776 | 50,346 | 124,122 | 13,281 | 786,891 |
| 1960 | 438,010 | 34,271 | 8,347 | 4,724 | 86,490 | 18,730 | 10,793 | 36,467 | 38,095 | 74,562 | 7,380 | 683,325 |
| 1955 | 356,589 | 43,606 | 8,597 | 5,884 | 84,668 | 16,675 | 10,945 | 23,446 | 20,769 | 44,215 | 9,948 | 581,127 |
| 1950 | 235,740 | 37,121 | 5,692 | 13,207 | 48,703 | 12,872 | 6,553 | N.A. | N.A. | 21,333 | 10,085 | 395,306 |
| 1945 | 128,823 | 19,071 | 1,128 | 6,824 | 14,458 | 14,130 | 30,366 | N.A. | N.A. | N.A. | 16,825 | 231,625 |
| 1940 | 119,950 | 7,330 | 1,064 | 4,561 | 3,194 | 13,249 | 1,402 | N.A. | N.A. | N.A. | 10,342 | 160,652 |
| 1935 | 53,797 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | 86,389 |

**(a)Beginning in 1979, heating oil was dropped as a separate category by Department of Energy, which had assumed jurisdiction for the data. The 1980-81-82 figures were derived by adding residential, commercial and farming categories.**

### Residual

| Year | Heating Oils | Industrial Use | Oil Company Use | Electric Utility Company | Railroads | Vessels Bunkering | Military Use | On-Highway | Off-Highway | Total Diesel | All Other | Total U.S. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1982(a) | 65,781 | 122,619 | 45,319 | 227,419 | 170 | 160,312 | 7,829 | — | — | — | 4,784 | 634,233 |
| 1981(a) | 67,035 | 117,024 | 51,870 | 325,486 | 178 | 188,632 | 7,008 | — | — | — | 4,795 | 762,030 |
| 1980(a) | 98,034 | 163,564 | 59,519 | 390,105 | 665 | 213,131 | 8,066 | — | — | — | 4,382 | 937,466 |
| 1975 | 154,103 | 116,657 | 50,847 | 454,935 | 583 | 96,673 | 19,068 | — | — | — | 6,066 | 898,572 |
| 1970 | 185,831 | 139,647 | 38,318 | 312,420 | 2,222 | 89,850 | 28,074 | — | — | — | 7,295 | 804,287 |
| 1965 | 156,264 | 140,602 | 34,354 | 114,884 | 4,001 | 73,639 | 40,380 | — | — | — | 10,004 | 574,118 |
| 1960 | 125,088 | 157,270 | 45,061 | 85,408 | 5,610 | 94,084 | 31,724 | — | — | — | 6,291 | 550,536 |
| 1955 | 86,282 | 173,030 | 53,387 | 75,966 | 15,018 | 115,128 | 28,368 | — | — | — | 9,804 | 556,983 |
| 1950 | 72,716 | 148,111 | 53,263 | 93,062 | 60,878 | 92,947 | 28,333 | — | — | — | 4,898 | 554,208 |
| 1945 | 43,874 | 91,176 | 57,336 | 57,336 | 112,297 | 100,365 | 97,485 | — | — | — | 5,200 | 542,265 |
| 1940 | 44,846 | 66,610 | 50,864 | 50,864 | 64,904 | 61,554 | 15,781 | — | — | — | 5,313 | 338,106 |
| 1935 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | — | — | — | N.A. | 279,596 |

**(a)See footnote above.**

### Combined Distillate and Residual

| Year | Heating Oils | Industrial Use | Oil Company Use | Electric Utility Company | Railroads | Vessels Bunkering | Military Use | On-Highway | Off-Highway | Total Diesel | All Other | Total U.S. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1935 | 76,853 | 63,576 | 48,116 | 23,647 | 55,651 | 74,581 | 10,428 | — | — | — | 13,133 | 365,985 |
| 1930 | 43,279 | 60,762 | 55,943 | 26,769 | 67,900 | 94,152 | 8,681 | — | — | — | 9,875 | 367,361 |
| 1926 | 22,779 | 69,336 | 48,701 | 33,651 | 72,218 | 79,288 | 6,542 | — | — | — | 7,514 | 340,030 |

**Source: American Petroleum Institute Basic Data Book (Sept. 1983), and Petroleum Facts & Figures (1971).**

all had departed, leaving a bruised and battered NOFI, its staff reduced and its programs crippled. The embargo and the allocations that followed dealt the death blow, and NOFI was merged into NOJC in 1974.

During the control years, there was only sporadic activity in oil heat promotion and development as the government regulated the flow of product and prices and banned moves that would encourage consumption of any fuel. Since decontrol in January 1981, a group of northeasterners tried to revive a promotional concept and solicit refiner "voluntary" support—a move that got nowhere.

In 1983, NOJC exercised its successorship right and sponsored an oil heat promotional conference of its own [NPN—Oct. '83, p44]. It met with far greater success than had been projected and apparently opened the doors to hopes for a revival of some good ol' days. NOJC already has tentatively scheduled a second national conference for next August.

This is one ingredient the oil heat industry desperately needs, in order to stave off the disappearance of its market. Some sources within the industry think that strong promotional programs on a local basis can once again light the torch and give the industry a chance to grow again, instead of collapse.

Outside of the flame retention burner and the blue flame that has been on the market for years, there has been little in the way of research and development within fuel oil in the past decade. Some equipment manufacturers, most of whom can ill-afford big expenditures for R & D, are pushing only their own product development. That's very good in its own way but does nothing for original concepts.

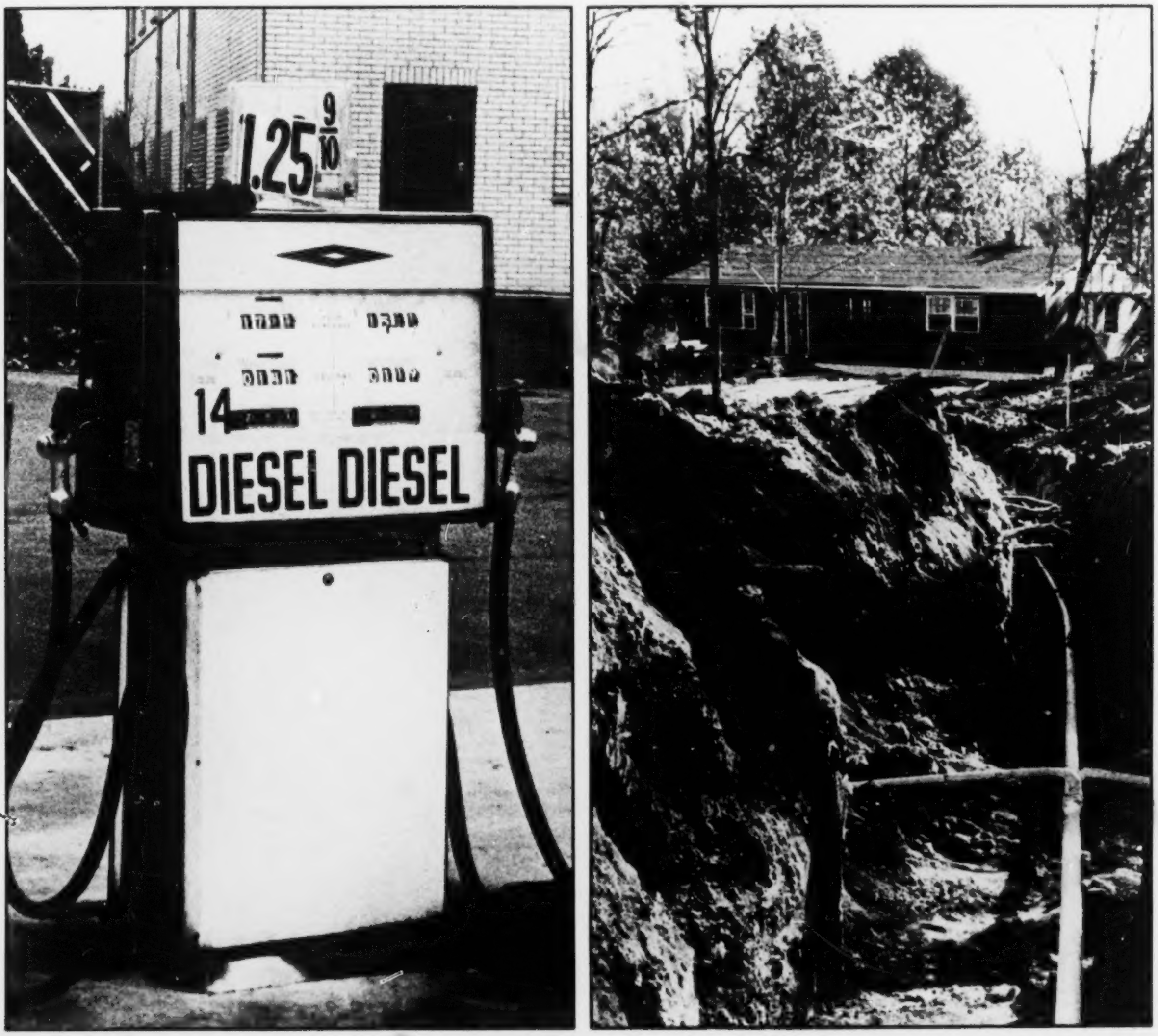
Meanwhile, the face of the industry is changing drastically, as it is in gasoline marketing. Smaller dealers are being forced out of business or into mergers. The big independents are fattening up as a result; but they also are gearing themselves up to do battle with all of their competitors—oil, gas or electricity.

An example of this is Meenan Oil Co., which has been the nation's largest independent fuel oil dealer for at least a score of years. It suddenly was displaced by another firm which seemingly came from nowhere to build up a late 1983 base of more than 150,000 customers on the Atlantic seaboard.

It would appear that the next five to 10 years are going to see more of the same—a gobbling up of the smaller and/or the acquisition of even the fair-sized companies by the more aggressive entrepreneurs.

As *NPN* celebrates its 75th year, fuel oil as an industry is in a state of transition. Its future is being shaped by some forces over which it has no control and others which it can harness to experience a rebirth. Which is the strongest is the question mark for today.

(continued on next page)



**In 1979, diesel fuel and fuel oil were about even in terms of distillate use. Diesel since has moved ahead, holding a 47.7% market share.**

# Fuel Oil Fades, While Diesel Moves Up

**OVER the past decade, No. 2 fuel oil lost its position of dominance in the annual consumption of distillates.**

As recently as 1970, for example, No. 2 commanded 56% of the distillate production.

Today, it is far less—down around the 31% mark. This is only an educated guess because this article was written at the end of 1983 and figures were not yet available for annual summaries and comparisons.

In 1982, however, No. 2's hold on the space heating marketplace had eroded to 33.3%.

Transportation not only took up the slack but outgunned distillates for space heating. At the end of 1982, diesel fuel for highway transportation alone had a bigger share of the distillate market than No. 2—roughly 13-million bbl. more.

The table shows what happened through the years. (Transportation consists of on-highway consumption by trucks, buses and passenger cars, and by trains and inland and offshore vessels.)

Diesel fuel alone, for on-highway and off-highway consumption, also began to exceed distillate for space heating in recent years.

For example, as recently as 1975, space heating needs consumed 46.8% of the distillate output, while diesel fuel accounted for only 25.6%.

In 1980, however, diesel fuel began a somewhat phenomenal climb. It consumed 34.5% of the output that year compared to space heating's 36.2%. In 1981, it shot past No. 2 by a ratio of 36.7% to 33.5%. And, in 1982, it rammed it home further with a percentage ratio of 38.5%, versus 33.3% for No. 2.

**Share of Market—1970/1982**

| | Transportation | Space Heating |
|---|---|---|
| 1982 | 47.7% | 33.3% |
| 1981 | 46.6 | 33.5 |
| 1980 | 44.2 | 36.2 |
| 1979 | 38.9 | 37.5 |
| 1978 | 34.1 | 42.4 |
| 1977 | 32.3 | 43.6 |
| 1976 | 32.0 | 47.2 |
| 1975 | 32.3 | 46.8 |
| 1974 | 32.3 | 45.6 |
| 1973 | 30.9 | 47.3 |
| 1972 | 28.7 | 50.5 |
| 1971 | 29.2 | 53.7 |
| 1970 | 27.7 | 56.2 |

Diesel fuel consumption continued to rise in 1983, while No. 2 slipped farther. So, there seems to be little doubt that this gap will be widened when the final figures are in for the year just ended.

As indicated above, these diesel fuel figures are for on-highway and off-highway consumption, the latter being mostly stationary engines and power-generation plants. But the off-highway consumption is only a small part of the total diesel fuel consumption—less than 10% in 1982.

In terms of consumption and importance to the oil industry, distillate as a space-heating fuel experienced its greatest years of glory in the 1950s, 1960s and very early 1970s.

During that time, space heating fuels consistently accounted for six out of every 10 barrels of distillates, peaking in 1961 at 65.2% of the output. *NPN 75th*

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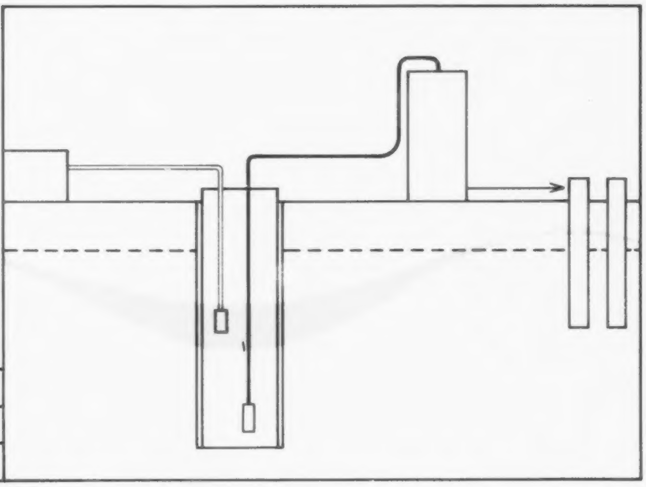

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## Small Jobber's Dilemma: Reinvest or Not?

## MacLeod: How Fair Is Rack Pricing?

## Why Rockies Jobber Likes the 'A' of TBA

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## Super-Marketers Arise From Fuel Oil Ranks

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MARCH 1984 VOL. 76 NO. 3

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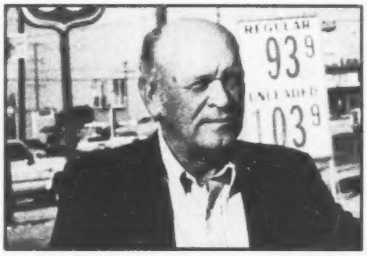
A new era might be dawning in the retail heating oil business, where 'bigness' has never been a part of the industry fabric. Super-marketers are buying up smaller jobbers, and three of the 'supers'—Petroleum Heat & Power, Meenan Oil, and Whale Oil Corp.—have emerged from the pack. - **Page 38**

**Cover art by Ann Feiza, Chicago**



Like Luther Glass, many oil jobbers who haven't modernized or rebuilt their retail facilities in recent years face some critical decisions in today's red-hot competition for business. **Page 44**

A survey of industry experts by the Petroleum Equipment Institute shows a majority believe the small jobber will be extinct by 1995. Bad markets, tank leaks and vapor control will push many 'little guys' over the edge. **Page 29**

# • CATCHING UP

**Eleven more U.S. refineries with 500,000 b/d in crude oil capacity closed down during the first 10 months of 1983, according to a recap by the Energy Information Administration, which anticipates another 75,000 b/d of shutdowns when year-end figures come in.**

| *Refiner* | *Location* | *Crude Distil. Capacity* | *Years Operated* |
|---|---|---|---|
| Anchor Refining | McKittrick, CA | 9,000 b/d | 8 |
| Arizona Fuels | Fredonia, AZ | 6,000 | 11 |
| Demenno-Kerdoon | Compton, CA | 10,000 | 6 |
| Erickson Refining | Point Neches, TX | 30,000 | 4 |
| GHR Energy | Good Hope, LA | 300,000 | 15 |
| Indep. Refining | Winnie, TX | 50,000 | 23 |
| Marion | Theodore, AL | 25,000 | 15 |
| McTan Refining | Augusta, KS | 50,000 | 25 |
| Shore | Kilgore, TX | 550 | 3 |
| Silver Eagle Oil | La Barge, WY | 1,500 | 9 |
| *Total:* |  | 501,350 | *Avg:* 10.8 |

**After much hand-wringing, Arco has decided to market its controversial methanol product, Oxinol, after all, but will support the blend with up to $10-million in advertising in its sole Pennsylvania and New York markets.** The company is distributing pamphlets telling drivers it will back any car manufacturer's warranty, if the automaker refuses to honor claims because of damage that might be traced to the blend. In January, officials said the company had paid $600 to seven drivers. Another 60 claims were pending, and 24 claims were dropped.

**Gulf has begun testing point-of-sale terminals at 18 stations in the Dallas and Houston areas.** Credit card transaction data is transferred through the JC Penney network to Gulf's credit card center in Atlanta. Customers in the two cities have been issued magnetically striped Gulf-Cards. The company, which projects 2,500 stations will have terminals by the end of 1985, also is installing terminals at 20 other Houston stations and expected the start of a test in Pittsburgh by next month.

**Southland Corp. is testing fast-food service at several of its 7-Eleven stores and gradually may extend the concept to its 7,300-store chain.** Three new stores in Austin, Texas, are involved in the current test, and 20 more new or converted stores will be added to the experiment this year. One Austin store, in addition to selling deli sandwiches, is offering hamburgers. Ovens and stoves soon will bake fresh biscuits, rolls, donuts and Danish.

**The country's major distributor of Petrocoal, a methanol blend containing up to 12.5% methanol, is under investigation for alleged misblending.** The Environmental Protection Agency says it took company records from United's Phoenix-headquarters in January, but would not comment on the case. A company spokesman says United believes the records will prove its integrity. The incident occurred as EPA was considering revoking or modifying the Petrocoal waiver. [See related story on page 11.]

**Sun Refining and Marketing has reshuffled its management team, prompted by the retirement of Gordon Cochrane, vice president, lubes.** David Rippy, vice president for branded fuels, has succeeded Cochrane, while David Knoll, vice president for unbranded marketing, has taken over Rippy's old job. T. Daniel Patrick, former manager of Sun Transport, takes over Knoll's old job, while Joseph Mazzei replaces Patrick.

**The Reagan administration's 1985 budget proposal calls for a Strategic Petroleum Reserve fill rate of 145,000 b/d and funding of $2.3-billion—nearly two-and-a-half times actual appropriations for 1984.** By last month, the Louisiana salt caverns had taken 385-million bbl. toward planned capacity of 750-million bbl.

**Gulf Oil Corp. has reincorporated as a Delaware corporation, eliminating cumulative voting and dampening Mesa, Ariz., oil man T. Boone Pickens' fight for company control.** Each share of common stock in the former Pennsylvania-based firm automatically converts to one share (or vote) in the Delaware holding company. In addition, Gulf Oil becomes a Gulf Corp. subsidiary.

**Gasoline demand edged up 1% or 6.6-million b/d last year versus 1982, the American Petroleum Institute reports.** In terms of distillate and residual fuel oil, demand averaged 2.7-million b/d last year—largely unchanged from 1982—although second-half '83 consumption picked up because of the economic upswing. Total product demand, however, fell for the fifth straight year, despite a "vigorous" economic recovery, says API. In addition, roughly 30% of that product demand was met by product imports last year, with more than a third of those imports coming from OPEC nations, says API.

**Flying J Propane, Inc., a subsidiary of Flying J Inc., Brigham City, Utah, has sold all interests in its Oregon and Washington propane operations to Vangas, Inc., Fresno, Calif., for an undisclosed amount.** Vangas, a 120-outlet subsidiary of Suburban Propane Gas Corp., Morristown, N.J., purchased nine retail outlets, two of which also sell gasoline and diesel.

**For the second time in the past three months, a legislator has proposed banning the sale of leaded gasoline.** A Minnesota state senator drafted a bill that he hoped would halt the sale of leaded gasoline in that state. An industry source notes, however, that the draft specifically would prevent local refineries from adding lead compounds to gasoline. Late last year, two Chicago aldermen proposed a leaded gasoline ban in Chicago.

**Thumbs up for propane.** A U.S. Justice Department memo informed the National LP Gas Assn. that its plan to pool member funds to promote propane as an automotive fuel won't run into antitrust barriers, so long as members don't collectively raise prices to cover the campaign. In fact, said Justice, the fund might even spur competition among propane vehicle parts and service suppliers. NLPGA officials last month had not yet worked out details and timetables for the promotion effort.

# • TRENDS

## More Jobbers Pulling for Minimum Markup Legislation

**Oil jobbers, pretty much divided over whether they want or can get retail divestiture or divorcement legislation at the federal level, seem to be turning their attention more toward state minimum markup laws.**

Although "below-cost" or "minimum markup" laws at the state level generally have been ineffective to date, more state jobber associations are considering them.

The National Oil Jobbers Council put together an analysis of such legislation in 1983 for its affiliated state members as a guideline, including a draft of a "model" bill. NOJC believes state minimum markup laws remain an "option" for its members, but executive vice president Phillip R. Chisholm indicates it is a rather weak one.

"None of the state minimum markup laws we studied seemed to be very effective," says Chisholm. Among other problems, he adds, product costs have to be defined under such legislation, and "this is virtually impossible to do."

The Texas Oil Marketers Assn. is among state associations now talking about the possibility of pursuing a minimum markup bill. So is the Louisiana Oil Marketers Assn., although that group's executive vice president Robert K. Butcher, says it is barely in the "thinking" stage.

TOMA planned to analyze various options for coping with what it still sees as "predatory" competition in the marketplace at a series of meetings in February and March. It will formalize its plans in time for its annual convention in April.

"We keep getting calls urging us to do something to get the marketplace cleaned up," says TOMA executive vice president Dave Fellers. "Some of our people find that C-stores are now leading things down. We are talking about possible minimum markup legislation, but we haven't forgotten divorcement."

*NPN* found last year that out of 36 state association executives interviewed, 25 were considering below-cost selling legislation [NPN—June '83, p30]. The Mississippi Petroleum Marketers Assn. at that time had drafted what it considered to be a "model" bill, but it was snuffed out in a House committee.

More recently, Tennessee jobbers have lobbied for proposed legislation that would fix the cost of wholesale gasoline daily throughout the state and require that retail pump prices be at least 6% higher.

Jobbers who testified for this legislation late in 1983 attempted to counter arguments that it would raise consumer gasoline prices by saying such a below-cost law would permit them to reduce prices on unleaded grades.

Some oil companies reportedly encourage their dealers to price their leaded regular gasoline with the market, then, make up the lost margin with greater markups on unleaded regular and premium grades.

While the Tennessee jobbers said their proposed below-cost bill would bring about reduced price differentials between leaded and unleaded gasolines, a unique bill has been introduced in Colorado. It would prevent a price spread of more than 20¢ gal. between grades of gasoline. [See story page 21.] And, in Missouri, the push is on for a bill requiring retail margins to fall between 12% and 25%.

While efforts to obtain minimum markup legislation seems to be on the increase, not all branded and unbranded jobbers favor such laws.

"We don't need the government setting the price on anything, and that's what this proposed bill in Tennessee would allow," says Jack Malone, a large branded and unbranded jobber of Memphis. Over the years, Malone has fought similar below-cost Tennessee laws that govern milk and tobacco prices.

"If we didn't have the minimum price laws on milk and cigarettes, a dealer could sell a carton of cigarettes or a gallon of milk at cost," says Malone. "This could be a powerful tool at little investment for him in fighting the competition he has. But because of the laws, he doesn't have these options. It's worse in Arkansas than in Tennessee, too."

Some major companies keep their marketing staffs on the alert to campaign against the minimum markup proposals as they crop up. *—Marvin Reid*

# • MARKETPLACE AT A GLANCE

### AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

| DECEMBER | Gasoline (All types) | Leaded Regular | Unleaded Regular | Leaded Premium |
|---|---|---|---|---|
| U.S. City Avg. | $1.215 | $1.146 | $1.231 | $1.381 |
| Regions: | | | | |
| Northeast | 1.236 | 1.169 | 1.238 | NA |
| North Central | 1.232 | 1.179 | 1.256 | NA |
| South | 1.186 | 1.111 | 1.198 | NA |
| West | 1.213 | 1.132 | 1.234 | 1.385 |

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

### STOCKS (Add 000 bbl.)

| | 1/27/84 | 1/28/83 |
|---|---|---|
| Gasoline (total) | 224,457 | 250,302 |
| Gasoline (unleaded)* | 93,084 | 102,090 |
| Jet Kerosine ** | 30,636 | 34,525 |
| Distillates | 122,244 | 170,282 |
| Residual | 43,149 | 59,681 |

**Inclu[illegible] in gasoline total*

***Jet kero only, totals no longer kept by API or DOE*

*Source: American Petroleum Institute*

# Survey Shows Dramatic Retail Diversity

**While gasoline marketing of little more than a decade ago was fairly static, the modern industry is almost chaotic in comparison as companies diversify to lure customers and stanch losses.**

This is confirmed by a Lundberg Survey, Inc., report which covered 16,810 service stations in all 50 states and Washington, D.C., at the turn of the year.

Here are some of the highlights—remembering, of course, that in the early 1970s, virtually all majors were full-service at the pumps, most had service bays and diesel fuel was strictly a truckstop product:

- Of the stations surveyed, only 13.1% now are full service, while 40.9% are self-service and 46.0% are split-island. But that's only half the story. The breakdown shows that of the majors surveyed, 14.8% were full-service, 25.0% self-service, and 60.2% split-island. The non-majors were 8.7% full-service, 81.4% self-service and 9.9% split-island.

The diversity within the ranks is literally amazing. [See chart.] Citgo and Arco, at 77.0% and 71.9% respectively, are far and away the leaders among the surveyed companies in self-service. On the other hand, Getty at 47.0% and Sunoco at 43.4% still have more full-service stations than the others surveyed. The fence-straddling split-islanders include Chevron at 84.2%, Exxon at 73.9%, Shell at 71.5%, Mobil at 69.7%, Union at 69.3% and Amoco at 62.7%.

- There are many variations in the grades of gasolines the surveyed companies sell at their stations.

For example: Only 10% of the companies still sell leaded premium gasoline—the majors 8.0% as a group and the non-majors 15.8% as a group. But 72.6% of the companies sell the three key grades—leaded regular, unleaded regular and unleaded premium. The strongest majors in the three-grade configuration were Standard of Ohio at 100%, Shell at 98.2% and Chevron at 96.3%. Also in the 90%-plus category were Amoco, Arco, BP, Exxon, Gulf, Mobil and Sunoco.

On the other side of the spectrum there were five companies that were substantially two-graders—"Union and Getty, because they decided to go that way, and Phillips, Conoco and Citgo, mainly because their jobbers did," according to Lundberg.

- Diesel fuel's luster seems to be fading with respect to predictions that were made for it in the mid-to-late '70s. Of the surveyed stations, only 17.7% handled diesel fuel—15.4% in the major category, 23.4% in the non-major. The biggest supporters were Phillips at 46.9% of its stations, Texaco at 36.2%, Gulf at 35.7% and Conoco at 34.5%. Least interested were Shell at 4.9%, Arco and Mobil at 6.3%, BP at 8.8% and Getty at 9.8%.

- There are a lot more service bays than most people realize. Says Lundberg: "Many of these bays are not being utilized efficiently, but there are impressively large numbers of them still out there in the service station networks."

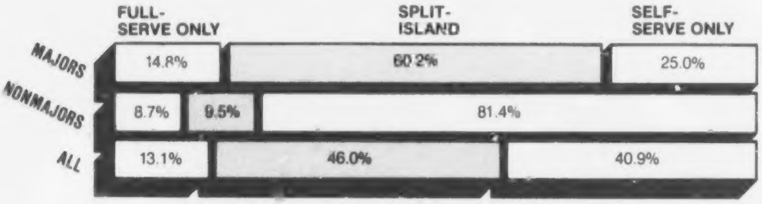
The study indicated 57.6% of the companies surveyed have service bays, of which the major stations have 72.1% and the non-majors 20.9%. Here again, company-by-company differences are almost dramatic. Union, Chevron and Mobil are in the 80%-plus category; Exxon, Phillips, Sohio and Texaco in the 70% group; and Amoco, Arco, Getty, Shell and Sunoco in the 60%-plus class. At the short end, BP at 5.3% and Citgo at 23%.

- Of the ancillary businesses—C-stores, car washes and truckstops—the latter two have been around longer, but the C-stores have come on faster. The all-industry figure for C-stores is 7.5%, but the non-majors tower above the majors in this category in their interest—16.9% to 3.8%.

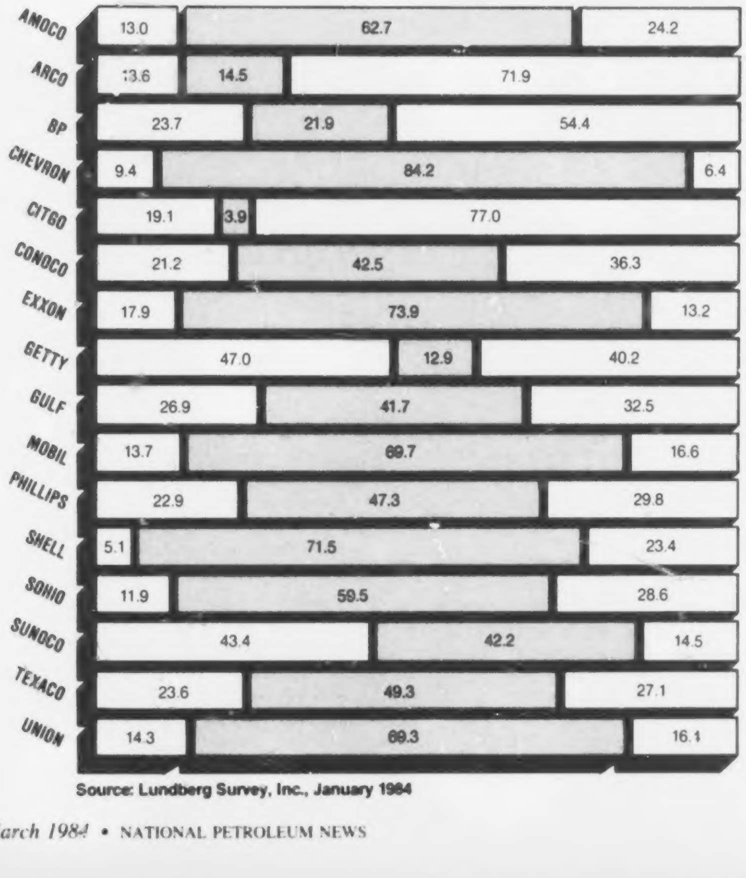
Leader of them all is Citgo with 32.2% of its stations involved with C-stores. Arco is second with 14.8% and Gulf, third with 8.3%. Professing as little interest as possible are Exxon at 0.7%; Getty at 0.8%; Sunoco at 0.9%; Chevron at 1.9%; Union at 1.9% and Mobil at 2.0%.

Says Lundberg: "The face of gasoline marketing has become complicated and interesting in response to economic changes. Since many challenges remain, further diversity seems likely."

## How the Top Companies Market Gasoline

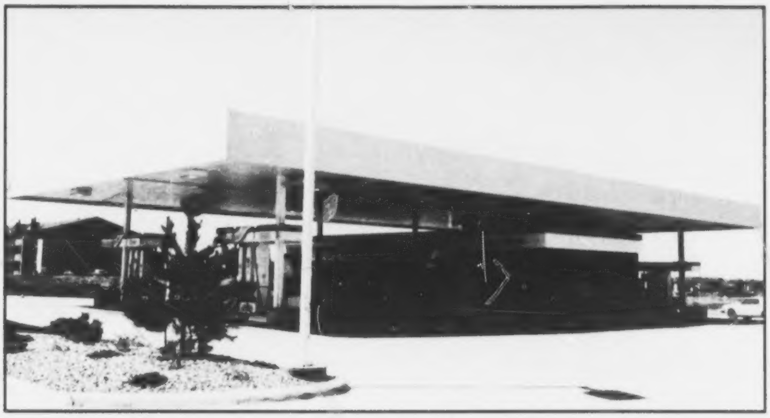


## By Individual companies



Source: Lundberg Survey, Inc., January 1984

# C-Stores Sold 12% of '82 'Gas;' Look for 20% by 1985: Roscoe



**The top chains sold 2.3-billion gallons of gasoline in 1982—each store averaging 1,100 gal./day.**

**Six out of 10 convenience stores now sell gasoline, according to the latest estimate of John F. Roscoe, the West Coast entrepreneur who annually publishes his own report entitled "Dollars-per-Day Survey of the Convenience Store Industry."**

Roscoe's report basically covers the top 10 publicly owned chains.

He noted that in 1982, the 10 public chains sold 2.3-billion gal. of gasoline, which was 2.36% of the 98.5-billion gallons vended for highway use.

More significant, however, were these comments from Roscoe:

"C-type stores (includes traditional stores, plus other food and gasoline combinations) sold 12.09% of the gasoline sold in the United States in 1982.

"We estimated that there are in excess of 50,000 convenience-type stores in the United States, and that 59% of them sell gasoline.

"On the average, they sell 1,101 gal. of gasoline per day per store. The number of C-type stores and the average gallonage of these stores is increasing each year.

"We estimate that in excess of 20% of the total gasoline in the United States will be sold through this type of unit in 1985. In 1976 (by way of comparison), only 1% of the total gasoline sold in the United States was sold through convenience stores."

In his annual ranking of the 10 stores used in his survey, Roscoe—who owns a small chain in California—gave first place to Shop & Go, headquartered in Mango, Fla., and the owner of 415 stores.

Second place went to Circle K, Phoenix, Ariz., 1,221 stores; third place, Southland Corp., Dallas, Texas, 7,165 stores; fourth place, National Convenience Stores, Houston, Texas, 1,012 stores; and fifth place, Lil' Champ Food Stores, Jacksonville, Fla., 170 stores.

The 10 chains had a total of 12,276 stores, of which 6,029 sold gasoline. The 10 added 480 gasoline units in 1982, Roscoe said.

## Dollars Per Day Gasoline Survey: Ten C-Store Chains Sold 2.3-Billion Gal. in '82

| Company | # of Gasoline Units | Number of Gal. Sold In 1982 | Avg. Gal. Sold per Day per Unit | Gasoline Margin per Gal. | % of Sales Contributed by Gasoline |
|---|---|---|---|---|---|
| Shop & Go | 286 | 74,000,000 | 689 | 3.8c | 33.9% |
| Circle K | 798 | 255,200,000 | 886 | N/A | 38.4% |
| Southland | 2,827 | 1,156,000,000 | 1,185 | N/A | 25.3% |
| Nat'l Convenience | 695 | 231,600,000 | 991 | 6.2c | 42.7% |
| Lil' Champ | 82 | 19,444,448 | 722 | 3.4c | 31.0% |
| Li'l General | 208 | 43,912,960 | 580 | N/A | 29.9% |
| Mini Mart | 41 | 8,361,280 | 580 | N/A | 21.8% |
| Sunshine Jr. | 322 | 66,608,905 | 580 | N/A | 51.1% |
| Conna | 289 | 146,000,000 | 1,387 | N/A | 39.4% |
| Munford | 481 | 327,000,000 | 1,887 | N/A | 56.3% |
| **Totals** | **6,029** | **2,328,127,593** | **1,101** | | |

**Source: John F. Roscoe, 13th annual Dollars-per-Day Survey—1984.**

## Two-Dozen States Mull Fuel Tax Hikes in '84

**Although 18 states hiked their motor fuel taxes last year, and a record 22 states raised taxes in 1981, marketers can expect more of the same for 1984.**

The Highway Users Federation (HUF) reports that motor fuel tax increases will be considered in at least 23 states this year. And, five of these states—Colorado, Connecticut, Minnesota, Pennsylvania and Vermont—just raised their excise tax rates last year.

Tax administrators say states trying to avoid a budget crunch are squeezing all they can from increased fees and taxes, and excise taxes are an easy target. HUF also says states have been raising highway user fees to maintain and repair state roads and bridges and match federal highway funds.

State taxes on motor fuel range from a low of 5¢ gal. on gasoline in Texas and 6.5¢ gal. on diesel in Oklahoma and Texas, to highs of 17¢ gal. in Minnesota and 17.4¢ gal. in Pennsylvania for both gasoline and diesel fuel. Washington state's rate will be 18¢ gal. July 1.

The excise tax is only part of some states' tax burden, however, as six of the ten states with the highest taxes per gallon also add sales taxes or gross receipts taxes. Michigan's excise tax, for example, is 15¢ gal. But combined with the state's 4% sales tax, the state's per gallon tax soars to 19¢ gal. or more.

American Petroleum Institute (API) figures indicate that 12 states tack an additional sales or gross receipts tax onto the price of motor fuel.

In 1983, 10 states' combined fuel taxes exceeded 15¢ gal. Two of those states—Washington and Minnesota—increased their excise taxes by 9¢ gal. between 1975 through 1983, the largest per-gallon increase of any state within that period (Wisconsin, with a 15¢ gal. excise tax also boosted its tax 9¢ gal. in that period.).

There are regional patterns: The Midwest seems to be the most heavily taxed, according to API figures. Half of the 10 states with highest combined tax rates are located there.

The southern states, on the other hand, tend to have lower tax rates. Half of the states with the 10 lowest tax rates are in the South. And, six of these states—Alaska, Louisiana, Missouri, New Jersey, Oklahoma and Texas—have not increased their excise taxes at all over the past nine years.

API figures suggest, however, that the overall trend is not only to boost taxes during a given year but to OK tax hikes for the years ahead. Illinois, for example, approved a 3.5¢ gal. increase for gasoline in 1983, as well as a 1¢ gal. hike in both 1984 and 1985.

# Late '83 Demand Hikes Year-End Profits

**Except for Texaco, the top oil companies managed to fare well in 1983 despite glutted markets and depressed product prices.**

The upswing in demand in the fourth quarter was especially helpful for some, and even helped a few of the 20 companies which took a bath in the dry hole from Alaska's Mukluk formation.

### Fourth Quarter and 1983 Annual Earnings

*(add $000)*

| Company | 4th Qtr. 1983 | 4th Qtr. 1982 | % Change | Full Yr. 1983 | Full Yr. 1982 | % Change |
|---|---|---|---|---|---|---|
| Exxon | $1,630.0 | $1,480.0 | 10.1% | $4,990.0 | $4,190.0 | 19.1% |
| Mobil | 445.0 | 398.0 | 11.8 | 1,501.0 | 1,213.0 | 23.7 |
| Texaco | 256.0 | 306.0 | (16.1) | 1,233.0 | 1,281.0 | (3.7) |
| Stand. (Ind.) | 459.0 | 415.0 | 10.6 | 1,868.0 | 1,826.0 | 2.3 |
| Stand. (Calif.) | 403.0 | 425.0 | (5.2) | 1,590.0 | 1,380.0 | 15.2 |
| Atlan. Rich. | 419.0 | 434.0 | (3.5) | 1,547.9 | 1,676.1 | 7.6 |
| Shell | 549.0 | 438.0 | 25.3 | 1,633.0 | 1,605.0 | 1.7 |
| Gulf | 297.0 | 226.0 | 31.4 | 978.0 | 900.0 | 8.7 |
| Tenneco | 241.0 | 288.0 | (16.3) | 716.0 | 819.0 | (12.6) |
| Stand. (Ohio) | 324.0 | 464.0 | (30.2) | 1,512.0 | 1,879.0 | (19.5) |
| Phillips | 247.0 | 155.0 | 53.4 | 721.0 | 646.0 | 11.6 |
| Sun | 61.0 | 151.0 | (59.6) | 453.0 | 537.0 | (15.6) |
| Getty | 238.9 | 172.7 | 38.3 | 494.3 | 691.6 | (28.5) |
| Union | 178.0 | 225.1 | (20.9) | 626.0 | 804.0 | (22.1) |
| Amer. Hess | 57.0 | 43.6 | 30.7 | 205.3 | 168.7 | 21.7 |
| Ashland (*) | 27.2 | 29.1 | (6.5) | — | — | — |
| Kerr-McGee | 17.1 | 73.5 | (76.7) | 118.4 | 209.8 | (43.5) |
| Dia. Shamrock | (130.0) | 46.2 | — | (56.2) | 185.1 | — |
| Murphy | 24.0 | 39.0 | (38.5) | 132.0 | 158.0 | (16.5) |
| Amer. Petrofina | 55.3 | 54.4 | 1.7 | 23.4 | 14.8 | 58.1 |
| Pennzoil | 57.7 | 50.5 | 14.3 | 164.2 | 188.7 | (13.0) |
| Quaker State | 9.1 | 7.2 | 26.4 | 36.6 | 38.6 | (5.2) |

(*) First quarter; fiscal ends 9/30.

Profits in 1983 increased from 1.7% to as high as 23.7% for seven of the eight major oil companies that top the list. Texaco was hurt by an $87-million loss on the Mukluk venture—as were Standard of Ohio, Standard of California and several others—and by $15-million writeoff in restructuring certain Canadian operations.

Shell's 1983 net income was its second highest in history, according to president John Bookout. He credited improved earnings in chemicals, natural gas and refined product margins.

Although current margins are "inadequate," said Bookout, he was hopeful that there would be a substantial improvement in business in the first quarter of this year. In the first quarter of 1982, Shell had a loss of $40-million because of depressed prices.

Exxon's C.C. Garvin also was on the cautiously optimistic side. "The oil industry appears to be recovering slowly as the market demand has improved from the severely depressed and unsettled situation of a year ago," he said.

Ethyl Corp. reported that its net incomes and earnings per share set new records in 1983. Net income for 1983 was $106-million—the first time earnings exceeded $100-million in any year.

# Report Says 207,000 Places Sell Motor Fuel; 234,000 Tanks Are More Than 21 Years Old

**An informal survey indicates that as of the end of 1982 there were 207,000 places selling motor fuels in the U.S. with a storage capacity of 80-million bbl. of gasoline and diesel fuel at their various locations.**

The survey also indicated that almost one-third of the tanks were at least 21 years old, emphasizing in its own way the growing problems associated with underground leakages. [See related story page 29.]

The survey was prepared by Ivan Maple, executive director of the Southeastern Independent Oil Marketers Assn., as part of his work with National Petroleum Council, which is making a study of secondary and tertiary storage tank capacity in the U.S. The NPC study is expected to be published in April or May.

Some of Maple's calculations were published in his membership letter simply as a matter of information and not as an official or semi-official report.

The Maple survey drew these informal conclusions for 1982:

Metro areas: 63,000 establishments with an average of 28,000 gal. of storage for a total of 42-million bbl.

Rural and urban areas: 57,000 stations with an average of 14,500 gal. of storage for a total of 20-million bbl.

Car dealers, implement dealers and small stores: 50,000 units with an average of 2,500 gal. of storage for a total of 3-million bbl.

Convenience stores: 37,000 units with an average of 24,000 gal., of storage for a total of 21-million bbl.

The survey estimates there were 750,000 tanks at the nation's retail outlets in 1982.

Another interesting breakdown provided these estimates in tank ages for retail stations only:

| Tank Age | No. of Motor Fuel tanks | Percent of total tanks |
|---|---|---|
| 0 to 5 | 90,720 | 12% |
| 6 to 10 | 113,400 | 15% |
| 11 to 15 | 136,080 | 18% |
| 16 to 20 | 181,440 | 24% |
| 21 + | 234,360 | 31% |
| Total: | 756,000 | 100% |

# Missouri Court Rules Oral Agreement Sticks

**A jobber who enters into an oral lease and supply agreement with a lessee dealer can be held to the terms of the Petroleum Marketing Practices Act, according to a Missouri federal court.**

The court upheld the claim of a lessee-dealer that Mid-American Petroleum, a Shell jobber in western Missouri, violated PMPA when it terminated the dealer.

Under the court's interpretation, any agreement—written or oral—in which a supplier agrees to provide retail facilities and product is a franchise. The key to the court's ruling was that Mid-American permitted the dealer to continue operating a jobber-owned station on a rental basis and continued to supply the station after the dealer failed to return a signed lease. The court said that by allowing the dealer to remain, the jobber created a "tenancy at will" (a virtual month-to-month lease) that is covered by PMPA.

The court ordered Mid-American to reinstate the dealer, but added that if proper grounds for termination still exist, the jobber can follow normal PMPA guidelines and proceed with termination.

## Gasohol Penetrates 8.1% of Fuel Market, Despite Tax Setbacks

**Sales of fuel ethanol and methanol in 1983 continued to increase despite lowered tax exemptions in some states and controversy surrounding methanol's suitability as a motor fuel additive.**

Information Resources, Inc., Washington, D.C., says ethanol blended gasoline (gasohol) sales increased by 92.4%, totaling 4.4-billion gal. The figure represents 4.44% of the total amount of gasoline consumed in the U.S.

The largest ethanol sales volumes were in the midwest and California:

| | Millions of gal. | % of all gasoline sales |
|---|---|---|
| **Michigan** | 561 | 15.59% |
| **Indiana** | 535 | 22.04% |
| **Iowa** | 505 | 37.85% |
| **California** | 474 | 4.38% |
| **Illinois** | 416 | 9.24% |

Methanol was added to an additional 3.65% of gasoline, bringing combined fuel alcohol market penetration levels to 8.1% of the U.S. market.

Information Resources points out, however, that 1983 has not been all smooth sailing for the alcohol fuel industry.

Some of the setbacks considered: the loss of the ethanol tax break in Oklahoma, the scaling down of exemptions in Florida, Illinois and Michigan and the imposition of a 50¢ gal. tariff on fuel ethanol imports.

Cited as setbacks for methanol: possible Environmental Protection Agency reconsideration of the Petrocoal waiver, the denial of American Methyl Corp.'s application for a Methyl-10 waiver and Chrysler's threat to void warranties if motorists use methanol blends.

## Group Hits Government For Slow Bill Payment

**More than a year after Congress forced federal agencies to pay their bills on time under the threat of interest penalties, a handful still make their suppliers—including oil marketers—wait weeks or even months for payment and have ducked the interest penalties.**

In a round of hearings in late January, the Slow Pay Coalition—an alliance of business and government contracting groups—singled out the U.S. Navy as "the worst bill-payer in the government" and argued that the poor payment record is preventing many suppliers from seeking Navy contracts.

Under the federal prompt payment law, federal agencies have 45 days from a bill's due date to pay suppliers. If they miss the deadline, interest (at a rate decided by the Treasury Department) is added to the bill retroactive to the 30th day after the due date. According to Kenton Pattie, coalition director, under directions from the Office of Management and Budget, many agencies which used to pay bills promptly are now holding them for the full 30-45 days, just barely avoiding the penalties. "Agencies have ignored the intent of Congress," Pattie says.

The coalition is pressing Congress to beef up enforcement of the law, but also has launched a campaign to convince all 50 states to adopt similar legislation affecting state purchases. In a recent report, the coalition said 18 states have added prompt payment laws to their books since the effort began, bringing the total to 27. Legislation is pending 12 others.

## GM Lawsuit Over Emissions System Recalls Forces EPA Rules Change

**A Washington, D.C., federal appeals court says the Environmental Protection Agency cannot force automakers to recall cars with defective emissions control systems once emissions control part warranties have expired.**

The ruling stemmed from a lawsuit filed by General Motors Corp. to block EPA rules covering emissions system recalls. EPA regulations would have given the agency power to force recalls of all vehicles in a given class, regardless of age or warranty status. But a District of Columbia appellate court ruled EPA overstepped its authority when it gave itself power to order recalls past the warranty period.

Under the federal Clean Air Act, many portions of automotive emissions control systems are covered by a mandatory five-year warranty, the rest under a two-year warranty.

Automotive aftermarket groups say the ruling will hurt EPA's recall powers by allowing vehicle makers to delay recall negotiations until the time limit expires. A spokesman for the Automotive Service Industries Association said the court's decision has "left the industry with absolutely no recourse other than legislative reform" to press for a change in emissions warranty requirements.

The automotive service industry has bitterly opposed EPA's five-year warranty rule on grounds that it forces consumers to take their vehicles back to dealers for service. The latest court ruling aggravates the problem, the automotive groups say, because many owners now won't be notified that their cars need servicing once the warranty expires.

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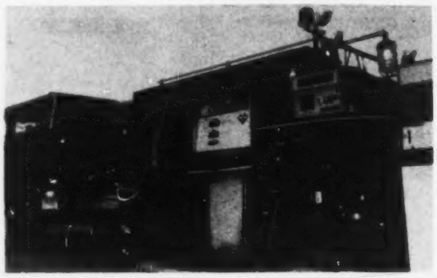

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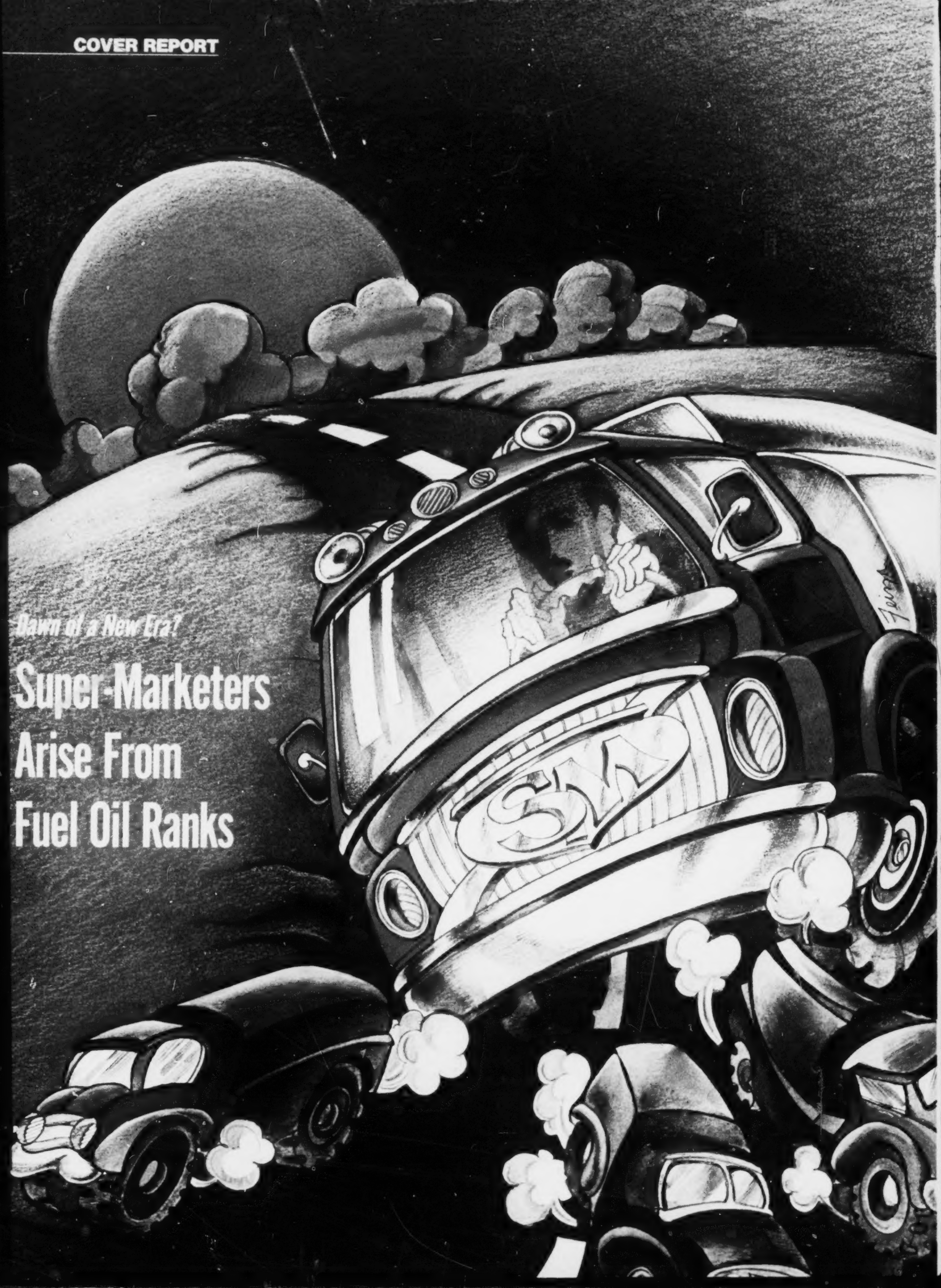


*Dawn of a New Era?*

# Super-Marketers Arise From Fuel Oil Ranks

**A new era might be dawning (or at the very least, strange things are happening) in the retail heating oil business, where bigness per se never has been a part of the industry fabric—as is true of gasoline—and most distributors are small, local companies.**

In recent months, however, an elite, three-company group of "super-marketers" has emerged from the masses for the first time in fuel oil's history.

Not only that, all three luminaries are committed to resolute expansion programs—to continue to acquire and merge in the future as opportunities arise in and around their marketing territories.

This can only lead to further growth in the years to come. Conceivably, such acquisition programs could lead to a bit of jockeying to become No. 1 in the retail business; or to hang on to the title, once achieved. But all three companies shrug this off, almost with disdain.

They told *NPN* unequivocally that they are interested only in profitable business operations, not in prestige races.

Some industry people think, however, that the emergence of the trio will usher in a slew of much bigger distributors than currently populate the marketplace—none as big as the top three, but nevertheless much larger than they are now.

A recent study by the Petroleum Equipment Institute supports such speculation. Although geared more toward gasoline operations, the report says that in 10 years or so, market contraction will leave primarily large, regional firms and a number of isolated rural jobberships. [See related story on page 29.]

Other knowledgeable fuel oil people back off from that bold proposition, however. They prefer to view the emergence of "the big three" as an unusual development, but not one that's signaling any massive changes in the making.

## Birth of Titans

To put the picture into perspective, however, this is what has been going on in recent months:

- Little more than six years ago, Petroleum Heat & Power, of Stamford, Conn., was losing gobs of money, while BP, its corporate parent, was avidly seeking a bail-out buyer. Today, under a new management and after a startling burst of acquisitions in 1982 and 1983, Petro—as it is known—has become the nation's largest independent retailer of No. 2 heating oil, which is used by roughly 10-million or so homeowners.
- Meenan Oil Co., of Syosset, N.Y., which had been the No. 1 independent for probably a quarter-century or more, suddenly found itself in second place, behind the upstart Petro, and simultaneously in the throes of a corporate restructuring to once again become a private company after a decade of public ownership.
- Whale Oil Corp. of Brooklyn, N.Y., more familiarly known as Whaleco, literally beat expansion-minded Petro to the punch and snatched eight New England firms from under its nose. They were up for grabs in a spinoff by Charter Oil Co. The acquisition made Whaleco No. 3 on the hit parade as well as giving it newfound recognition as "a comer that's been in the shadows much too long."

Petro currently has in excess of 140,000 household accounts and about 170-million gal. of No. 2 heating oil, all retail. Meenan, which used to have 140,000 accounts but dropped back to 128,000 in a series of changes, estimates its No. 2 volume at 130-million gal. Whaleco has about 78,000 retail accounts and about 150-million gal. of oil. Whaleco's gallonage includes some gasoline and diesel fuel, however, and the company said it did not think any useful purpose would be served in breaking it into categories. On a rule-of-thumb basis, some industry people thought the No. 2 gallonage might be around 90-million or so.

## Creation of Also-Rans

After those three, the accounts and gallonage numbers drop off dramatically—down to where those in the next rank are firms in the 10,000 to 20,000 range in their number of home heating accounts. So confusing does the picture become that even the old pros were reluctant to hazard a guess as to who might be considered a likely prospect for the No. 4 ranking.

Another factor that makes such a choice difficult is that the mix of household retail, commercial-industrial sales and wholesale sales varies all over the place in these companies. There are fuel oil firms whose wholesale and commercial volumes are greater than the top threesome. They too have No. 2 household accounts but nothing like the elite leaders.

By way of contrast, *Fuel Oil News*, a sister publication of *NPN*, recently noted in its annual survey that the average heating-oil distributor in the U.S. has 1,120 household accounts and 100 commercial accounts. The average distributor handles 1,744,815 gal. of No. 2 and 271,978 gal. of residual annually. These averages vary considerably by regions. [See table.]

There are no hard numbers available at this time on the fuel oil distributor population. The federal government made its usual quinquennial nose count in 1982, but the data has not been published yet. Most likely they will not be available until much later this year or early 1985.

The last U.S. census of retail businesses in 1977 gave a heating oil and LPG population of 20,246, of which 10,669 were fuel oil establishments (7,306 LPG and 2,271 "unclassified"). If the latter were split three-to-two in a rough weighting, it would make the fuel oil population about 12,000 in 1977—a number most industry people would agree with.

The retrenchment in fuel oil via acquisitions, liquidations and collapses has not been as heavy as in gasoline in the intervening years. So, if it can be assumed that at least 10% have vanished via buyouts and sellouts and liquidations, then a fair estimate of the fuel-oil population would be 9,000 to 10,000. Some of these establishments may also be selling other liquids, but U.S. Census Bureau regulations give dual recognition to this possibility in oil marketing.

## How Titans Tick

There are several interesting aspects in the emergence of Petro, Meenan and Whaleco from the great body of distributors and the way they dominate.

1. All three are headed by younger men. The youngest is 36, the oldest 52.
2. All three presidents are the sons of men who put together and operated their own fuel oil firms most of their lives.
3. All three look at the fuel oil industry as a land of opportunity, even though it is diminishing in size and scope.
4. All three firms exhibit deep concern for their employees, the strengths of their business managements down the line, and the images that their teams reflect in the local markets.
5. All, at the moment, are privately owned. But there are two ironic exceptions. Meenan went public in 1972 and became a private company again last December when KOV Corp., composed of three officers of the firm and an investment group, bought all the stock for $29-

## Average Fuel Oil Dealer Varies Regionally in Size and Volume

| | No. Residential Fuel Oil Accts. | No. Commercial/ Indus. Accts. | Distillate Volume (gal.) | Residual Volume (gal.) | No. of Employees |
|---|---|---|---|---|---|
| **New England** | 1,029 | 42 | 1,092,600 | 30,000 | 9.9 |
| **Mid-Atlantic** | 2,318 | 259 | 3,806,514 | 328,571 | 13.0 |
| **South** | 675 | 95 | 1,194,270 | 351,000 | 7.7 |
| **Midwest** | 433 | 52 | 971,657 | 304,161 | 6.9 |
| **West** | 1,144 | 54 | 1,659,036 | 346,226 | 10.0 |
| **U.S. AVERAGE** | 1,120 | 100 | 1,744,815 | 271,978 | 9.5 |

**Source: *Fuel Oil News*, a Hunter Publication.**

Merger-minded, Wall Street-smart Sevin helped vault Petro into No. 1 retailer of No. 2.

million. On the other hand, Petro has just filed papers to go public and expects to complete this transition in the very near future.

## Leading Men

At Petro, the ramrod figure is Irik Sevin, 36, and already an adept master at acquisitions and mergers—something he learned in Wall Street right after his college years. He is president of the firm, and his father, Malvin P., is chairman. "I'm the road man and he keeps the store," says young Sevin with a grin. "But we're a perfect team, we never do anything without talking to each other about it, and we have absolute confidence and trust in each other."

At Meenan, it's William Kenny III, now 52. He's president and CEO of the new holding company. His father, William Kenny Jr., was the CEO of Meenan Oil for well onto three decades. Kenny Jr., is out of the firm in a managerial capacity now, but he still serves as an advisor. Kenny III is in full control and on his own.

At Whaleco, the top man is another soft-spoken, self-effacing individual, Peter F. Carini. Now 46, he acquired Whale Oil from Amoco in 1971. He learned the fuel oil business at the feet of his father, who had built up a 3,000-account business in the Flatbush section of Brooklyn.

All three of the individuals are strong believers in participating in their industry associations and in the promotion of oil heat.

Sevin, even though he hasn't racked up as many years as Kenny and Carini in the industry, is already a director of Empire State Petroleum Assn., Independent Connecticut Petroleum Assn., New England Fuel Institute and New York City's Metropolitan Energy Council. Kenny also is an ESPA board member, and is deeply involved in the work of the Oil Heat Institute of Long Island, New York Oil Heating Assn., and the Metropolitan Energy Council, to cite a few. Carini likewise is on the ESPA board and is chairman of the Metropolitan Energy Council and very active in New York Oil Heating Assn., and many other groups.

## The Petro Story

Petro caught young Sevin's eye while he was toiling for a Wall Street firm that specialized in acquisitions and mergers. He and his father, who had a small fuel oil firm on Long Island, put together a group of financial backers to buy the ailing Petro, which had been plodding along for 80 years or so, first as a vendor of coal then, of oil. It operated in metropolitan New York City (Long Island, New York and Westchester County) and in Connecticut.

"He got it for a steal; an absolute steal," said some of his industry associates.

But even if it was a "steal," it wasn't an easy beginning for the Sevins. Petro had just lost three-quarters of a million dollars even though it was moving more than 100-million gal. of fuel oil. The Sevins did some fast spin-offs to generate some ready cash. Ironically—one of the firms they sold—Effron Fuel Oil—was bought by Meenan. The company was stripped back to about 58-million gal. Some industry sources said the Sevins got enough cash flow from the spin-offs to equal the buying price so they were, in effect, home-free. Young Sevin says he and his father managed to turn the company around rapidly. "In little more than a year," he says, "we went from a $750,000 loss to a $1-million profit."

There was some backing and filling in the earlier years as the Sevins restructured their firm and built up their cash reserves.

PETRO
FUEL OIL
SERVICE

In 1982 and 1983, young Sevin began to step out. He acquired five firms in 1983 alone and wound up the year with a total of 140,000 accounts and 170-million gals. of No. 2. He extended his southern perimeter first to Baltimore, Md., then, on to Washington, D.C.

But it was in metropolitan New York and New England where he took his biggest jumps. First, he picked up the retail business of Public Fuel Service of New York, then owned by Bob Greenes, a well-known industry leader. It had 15,000 accounts and 70-million gal. of fuel that also included some No. 4 and No. 6 in New York City, Westchester County and northern New Jersey. Next came Atlas of Boston, which put 45,000 household accounts and 42-million gal. of No. 2 in his expanding universe. He closed out the year with a smaller firm in Boston. In January he was negotiating with several additional possibilities.

## Petro the Prowler

"We're constantly looking for acquisitions that will fit into our marketing plan," says Sevin. "That's the key—not the size but how the purchase will fit into our business pattern. And, for the record:

No, we're not interested in being No. 1 just for the heck of it. That's meaningless. What we want is a profitable business operation. Period."

Petro has 540 vehicles but little storage capacity of its own. "We operate basically on a 15-day throughput schedule," Sevin says. "We buy in tanker and barge lots but we lease capacity where it's needed and for as long as necessary. We really don't have much of our own."

In addition to the No. 2, Petro markets some gasoline and about 8-million gal. of heavy oil. "But we're really only interested in the No. 2," says Sevin. "That's our prime market."

In recapping a bit of Petro's fortunes, Sevin mentioned that he disliked very much the need to spin off some of the subsidiaries in the earlier days. "But we had no alternative if we wanted to stay alive," he says. "We believe in our people and we work very hard on building up a tight-knit organization to support our managerial concepts."

Sevin, married only last October and still bubbling about it, maintains a hectic schedule. He lives in New York City, as does his father. Both reverse commute to the company headquarters in Stamford, Conn. He figures he spends a day to a day-and-a-half in Stamford, one in Boston, one in New York, maybe another in Washington, maybe elsewhere as need may be. "It's just go, go, go," he says. "But I thrive on it."

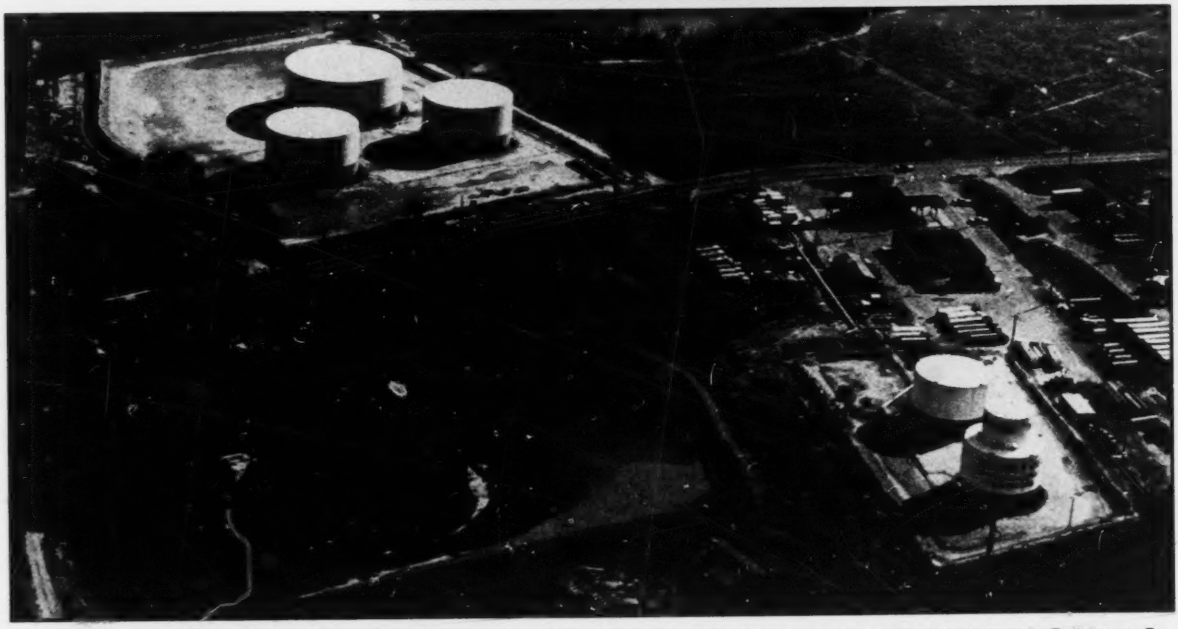
### The Meenan Saga

Meenan's Kenny III is sober-sided and sharp as a tack on his company's affairs. He and his two partners, vice presidents Stanley R. Orczyk (operations) and Paul A. Vermylen Jr. (finance) are the principals of KOV Corp., the private owners of the old public company.

Why the switch back to private ownership?

"We saw market conditions change and we decided to concentrate on fuel oil," says Kenny. "It became obvious that people had lost interest in buying $2,500 oil burners, so we spun off our Blue Flame subsidiary. We also saw that it really wasn't necessary for us to own our own production, so we are spinning off Menexco, Inc., our crude oil company. We also felt that under private ownership we could run our operations more efficiently and more economically. It costs a pretty

**Kenny and his KOV Corp. partners last summer took Meenan Oil private again for $29.5-million to 'run operations more efficiently.'**



**Meenan owns some 600 vehicles, and retails and resells some 230-million gal. of No. 2. Above, its expanded tank farm in Tullytown, Pa.**

penny, you know, to be a public company."

He said "our group offered the shareholders $12 a share, which was about twice the going market price. That made it a fair deal for them and enable us to restructure everything the way we wanted to." Meenan went public in 1972 and was the only publicly owned fuel oil company around. But neither the stock nor the market lived up to expectations.

In KOV, Kenny personally owns 10.2% of the stock, Orczyk 7.2% and Vermylen 6.1%.

Like Sevin, Kenny disavows interest in being No. 1 or even putting up a fight for the title. "We want to strengthen our market position and we're interested in acquisitions that will help us do that," he says. "Everybody is losing gallonage and customers as a result of conservation ethics and competition. To offset those and to keep distribution operations profitable, you have to acquire more business."

### Some Scaling Back

Kenny confirms that Meenan currently has 128,000 household accounts and 130-million gal. of No. 2. "But we also have about 100-million gal. of wholesale No. 2, so that would put us way up there in total volume." Kenny mentioned that Meenan has pulled out of Connecticut, selling Peterson Oil Co. back to its original owners. Meenan also closed out its Central division in New Jersey in December.

"We're going to concentrate our efforts in the markets where we now are—Long Island, lower Westchester, southern New Jersey and eastern Pennsylvania," says Kenny.

Meenan's network of facilities is substantial. The company has 600 vehicles of all sorts, including 198 delivery trucks, 40 tractor trailers and 13 transports. The company has, when fully utilized, more than 55-million gal. of storage capacity available. That's roughly 26 days of supply in normal winter weather. The payroll is large for a retailer—617 year-around employees and 167 seasonal personnel for a total of 784. A few of these people will be—or already have—losing their jobs at corporate headquarters in the completion of the switch from public to private ownership. Their jobs were to handle the extra chores and details required for public ownership.

Meenan's no slouch in the acquisitions area. In fiscal 1982, it acquired 10 companies at an aggregate cost of $9.4-million. Once Kenny III gets the house in order, it can be presumed that Meenan will be on the prowl again for prospective additions to its network.

### Tale of Whaleco

Carini doesn't have to take a back seat either in the marketplace.

Since he acquired Whale Oil Corp. in 1971, he has bought up almost two dozen firms. Where once he had only the Whale Oil Corp. of Brooklyn, he now has the Whale Oil Corp. of New Jersey and Whale Oil Corp. of New England. They are like sister companies, rather than subsidiaries, but the top management is the same for all three.

Carini's purchase of the retail fuel oil assets of Charter Oil Co. last fall was a real stunner for most of the home heat industry. Charter had bought the properties only months before from the Kaneb family. It decided to retain the heavy oil and the wholesale businesses and put the residential No. 2 on the block.

Some people say that Petro's Irik Sevin thought he had the deal all wrapped up when Carini walked away with the string of companies in New Hampshire, Massachusetts and Connecticut. Carini politely b[illegible]efused to discuss the economic[illegible]ved, but the package did get him 38,000 new accounts and 50-million gal. of No. 2. Added to what he already had in New York and New Jersey, that gave him a spanking total of 78,000 households and 150-million gal. of oil.

Carini conceded there was some gasoline and diesel fuel in that gallonage total, so the numbers are not comparable with those of Meenan and Petro. In addition, he noted, the marketplaces are different in that most of Meenan's and Petro's are single family homes, while many of his in the metropolis, for example, are multiple dwellings and apartment complexes, which basically account for only one number but substantially greater gallonage.

One thing that makes Carini and Whaleco stand head and shoulders above most of the industry is a firm belief in equipment sales and installation. "We sold more than $5-million worth of equipment last year," Carini says. "So it can be done, if a company really wants to do it. I've always believed that if you want to be in this business and prosper, you ought to sell the equipment that uses the fuel you also sell."

All in all, three remarkable young men are in charge of three old-line companies which are suddenly 1-2-3 in the fuel oil business. With the drive that they have and their eagerness to expand, this year and next should be a very interesting period. **NPN**

**Whaleco's Carini snatched up Charter Oil's fuel oil assets and entered three new states.**

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April 1984

Getty Deal Makes Power Te[illegible]

[illegible] Reno Jobber Profits [illegible]

[illegible] Pressure Builds [illegible]

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# Merger Frenzy

## Now, *Supplier* Fallout Shakes the Industry

cial Report:
Stores

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The third phase of what has been a dramatic restructuring and regrouping of the entire oil industry since the '70s seemed to be at hand last month as Getty, then Gulf—the 13th and eighth largest integrated companies—became felled merger targets. **Page 20**

**Cover art by Marcus Design, Chicago**

Food
Grocery
24
HOURS

In the early '60s, building food mart/gasoline outlets was considered questionable. But store combos have spurted from a 1% share of the retail gasoline market in 1974 to a more than 12% share currently. The big question now is: Can you afford the tie-in? **Page 34**

WASHOE KEYSTONE

For Reno, Nev., fuel oil jobber, the popular notion of efficiency does not necessarily spell success in a shrinking market. But then, 50¢ gal. fuel oil margins aren't popular either. **Page 62**

# • TRENDS

## Does Industry's Watershed Mean Shedding Downstream?

**Oil marketing appears to be at another turning point as the biggest industry story since the 1973 oil embargo continues to unfold in corporate and bank boardrooms. [See cover story on page 20.] Some sources are saying divestiture of refining and marketing assets by large integrated oil companies could become widespread.**

Already, Texaco has agreed to shed most of the downstream assets picked up in its acquisition of Getty Oil. As Standard Oil of California's offer to buy Gulf has been approved, it probably will have to spin off some refining and marketing properties. Kuwait Petroleum Corp., among others, was being mentioned last month as possibly winding up with Gulf Oil's refining and marketing properties, while the bidding for Gulf was still going on.

Some marketers believe the spotlight on downstream operations soon will be so intense that more companies will begin thinking of restructuring their operations.

It is interesting to recall in this context that Gulf Chairman James E. Lee, well before Texas oilman T. Boone Pickens Jr. set off frenzied negotiations for control of the company, cast doubts about downstream profitability under the best of conditions in a *Wall Street Journal* article.

Some financial analysts claim that low downstream profits in relation to the value of crude oil have caused many oil company stocks to be under priced. This has made those with high crude oil reserves subject to the present merger mania.

Oil marketers are wondering who they might be buying product from or working for down the road, if companies keep changing hands. [See story page 57.]

When E.I. du Pont de Nemours acquired Conoco Inc. in 1981, Conoco marketers had to suffer some jibes about paint salesmen becoming their supplier reps. There was probably some steely sarcasm for Marathon marketers, too, when U.S. Steel acquired that company.

But recently, when the names of Allied Corp. (formerly Allied Chemical) and General Electric were included in a long list of companies interested in Gulf, some Gulf jobbers decided such "outside" ownership might not be that bad. (That, however, seems to have been obviated by Chevron's "inside" move.)

One reason is what has happened since at Conoco and Marathon. Marketing seems to have faired pretty well at both companies under the new owners, although there has been talk of budget squeezes at times. It was widely believed that Du Pont would sell off Conoco's marketing right after their merger. Instead, some crude oil reserves were sold.

"I think Du Pont sees value in Conoco's refining operations because they supply raw materials for chemicals made by Du Pont," says a Gulf jobber. The same would have held true if Allied Corp. had been able to purchase Gulf, he adds.

The Gulf jobbers didn't know what to think of the apparent interest of the Kuwaitis in Gulf's downstream facilities as the merger machinery churned in early March. Some sources at the time thought if Arco, Socal or Mobil wound up in a "friendly" takeover of Gulf, a deal might have to be struck for Kuwait Petroleum to take the downstream assets in order to obtain Washington approval. Some believed that despite the Federal Trade Commission's quick approval of the Texaco/Getty merger, a Socal/Gulf entity would have approximately 10% or more of the U.S. gasoline market. And, FTC didn't give Texaco a preliminary green light until agreement was reached for Texaco to sell most of the Getty downstream assets. [See story on page 25.]

Congressmen were beginning to react to the big company mergers in early March. Sen. Howard Metzenbaum (D.-Ohio) planned to introduce an amendment to the FTC authorization bill which would ban the acquisition of any major oil company producing at least 500,000 b/d. Sen. Bennett Johnston (D.-La.) was trying to introduce a measure which would deny new federal oil leases or right-of-way benefits to U.S. companies involved in mergers.

But if the mergers aren't curtailed, more and more marketers can expect to find new owners of some type controlling downstream operations. A trend toward voluntary divestiture of refining and marketing by large integrated companies may no longer be unthinkable.

# • MARKETPLACE AT A GLANCE

### AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

| JANUARY | Gasoline (All types) | Leaded Regular | Unleaded Regular | Unleaded Premium* |
|---|---|---|---|---|
| U.S. City Avg. | $1.200 | $1.131 | $1.216 | $1.369 |
| Regions: | | | | |
| Northeast | 1.224 | 1.156 | 1.228 | 1.380 |
| North Central | 1.215 | 1.163 | 1.238 | 1.414 |
| South | 1.168 | 1.093 | 1.181 | 1.333 |
| West | 1.200 | 1.118 | 1.223 | 1.389 |

**Effective 1/1/84, prices for leaded premium were discontinued, due to the decline in the number of outlets selling this fuel.*

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

### STOCKS (Add 000 bbl.)

| | 3/2/84 | 3/4/83 |
|---|---|---|
| Gasoline (total) | 235,579 | 253,477 |
| Gasoline (unleaded)* | 97,784 | 100,566 |
| Kerosine ** | 33,179 | 34,644 |
| Distillates | 129,750 | 148,766 |
| Residual | 52,482 | 54,652 |

**Included in gasoline total.*

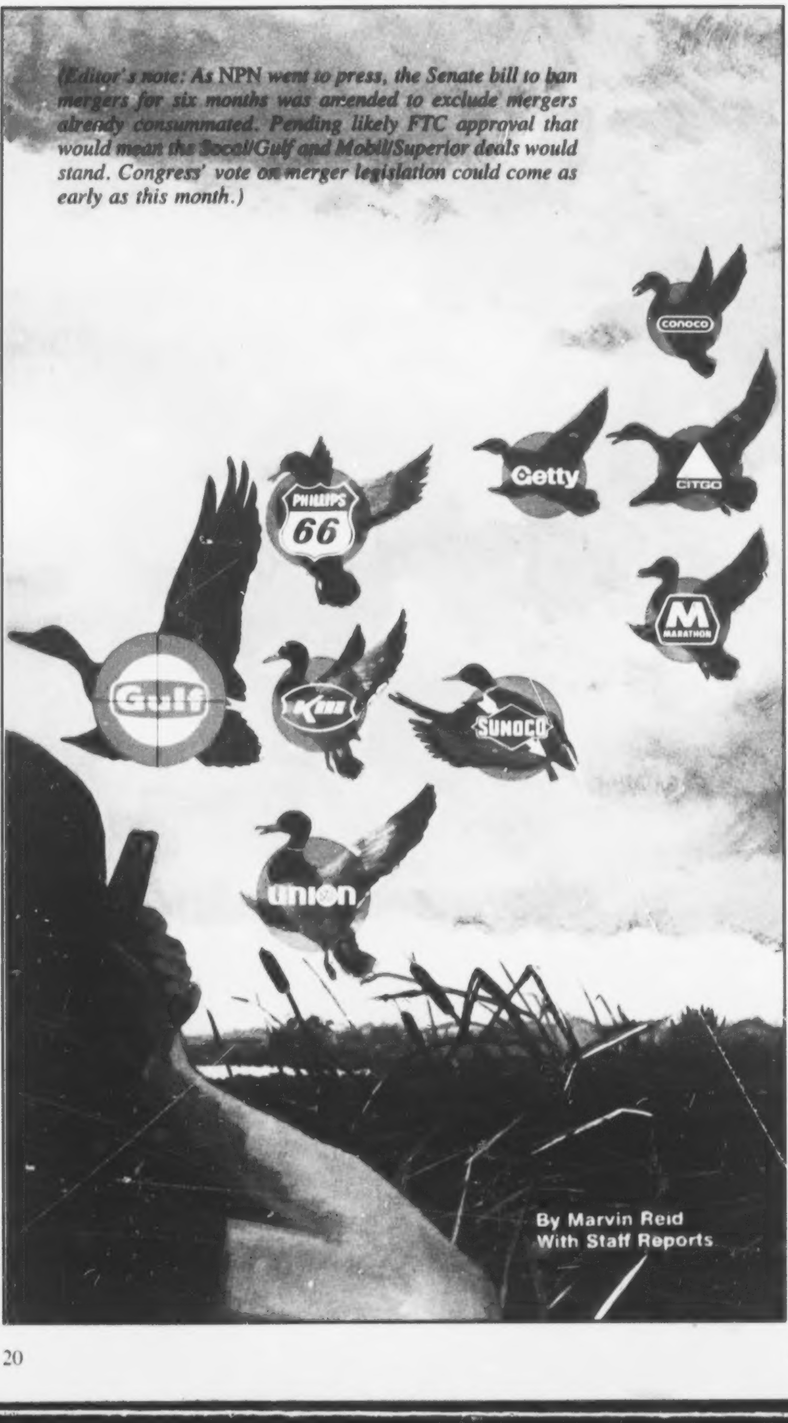
***Jet kero only.*

*Source: American Petroleum Institute.*

NPN

**NATIONAL PETROLEUM NEWS** **APRIL 1984**

# Merger Frenzy: Supplier Fallout Begins to Shake the Industry



*(Editor's note: As NPN went to press, the Senate bill to ban mergers for six months was amended to exclude mergers already consummated. Pending likely FTC approval that would mean the Socal/Gulf and Mobil/Superior deals would stand. Congress' vote on merger legislation could come as early as this month.)*

**By Marvin Reid**
**With Staff Reports**

**The third wave of what has been a dramatic restructuring and regrouping of the entire oil industry since the 1970s seemed to be at hand last month as the 13th and eighth largest integrated companies became felled merger targets.**

An outcry from Washington following the Socal/Gulf agreement, however, could cool some of the merger fever. [See story on page 12.] There was talk that Congress might pass a temporary moratorium on oil company acquisitions or take similar action. Jobber groups were urging the federal government to step in, and Sen. Bennett Johnston (D-La.), usually an ally on oil industry issues, agreed something had to be done quickly to "stave off this hemorrhage of mergers."

The industry first was stunned in February when Texaco, the third largest company in total assets, struck quickly to acquire Getty Oil, ranked 13th, for approximately $10.1-billion. At the time, this was the largest corporate merger in U.S. history [NPN—Feb. '83, p22].

Not for long. Almost before the ink had dried on this deal, Standard Oil of California (ranked fifth) bid over $13.2-billion for Gulf Oil (ranked eighth). Gulf's board of directors quickly voted on March 5 to accept the Socal offer.

And again. One week later, Mobil swept up the nation's No. 1 independent producer, Superior Oil for $5.7-billion.

As shocking and unexpected as these merger deals were, experts believe they could be just the beginning of an industry epidemic. Already, there is speculation as to which companies will be next.

Many marketers fear if mergers continue, the impact downstream could be devastating. They are concerned that the oil industry soon could become too concentrated, reducing jobber supply options.

"I don't know what's going on and I'm scared," a small Gulf jobber in the Southwest admitted. "Whatever happens, it looks like I'll be left stranded."

Some supplier executives have been saying that their segment was due for some culling out, just as jobbers and dealers have undergone their shakeouts. These sources say the industry simply has too many companies and distributors fighting over a shrinking market.

Gulf's Lee: Company's sellout sped from impossible to conceivable to inescapable.

Indeed, Getty and Gulf aren't the first merger victims so far in the 1980s. Getty joins other such second-tier victims since 1981 as Conoco, Marathon and Cities Service. Several smaller companies (including Apco, Champlin, Delta and Vickers) have changed hands or discontinued some marketing operations since 1978. Several other small to medium-size refiner companies are known to be struggling.

But Gulf, which grew out of the Spindletop gusher of east Texas in 1901, is the first of the so-called "Seven Sisters" to become a probable victim, and this causes marketers to expect anything now.

"A new era is upon us," says Nelson Rusche, a large Gulf jobber in Houston. "A lot of today's oil companies probably won't exist three to five years from now."

Financial analysts agree. They say the quest for more crude oil reserves is behind the current merger activity, with the bigger companies sizing up smaller ones, and Wall Street becoming the most attractive place to explore for oil. "It's like a square dance (out there) with everybody lining up on different sides of the floor," says a New York analyst.

Unless the government stops the music, here is how the big new partners reshape the rankings by 1983 assets:

**Exxon—$62.3-billion**
**Socal/Gulf—$45-billion**
**Mobil/Superior—$41.4-billion**
**Texaco/Getty—$37-billion**

"You've got to start wondering if we won't wind up like the auto industry, with just a few companies controlling everything," says Jack Malone, a Memphis marketer.

"Any medium-size refiner with crude reserves is nervous now," says a Midwest independent refiner-marketer.

### The Socal/Gulf Deal

Approximately 1,715 Gulf-branded jobbers and a large marketing department that was already being trimmed back watched unbelieving in late February and early March as this giant among giants was forced to accept a "friendly" takeover.

T. Boone Pickens Jr., chairman of relatively tiny Mesa Petroleum Co. of Amarillo, Texas, touched off a battle for control of Gulf last fall. In the beginning, as Pickens and a group of investors he lined up increased their Gulf holdings, it seemed impossible that he could either gain control of the company or force it into a merger.

But after buying up 21.7-million shares and making a tender offer for 13.5-million more—which would have given the group a 21.3% stake in the big company—Pickens and his backers by late February had sent Gulf's management packing for a "white knight."

Atlantic Richfield lined up $12-billion in credit through 64 banks—a maneuver that put them in the forefront of presumed candidates for Gulf—and prepared to make a $72 per share bid for the company. An investment-banking firm, Kohlberg, Kravis, Roberts & Co. came to the table with the highest bid, $87.50/share. But its was a leveraged cash-and-securities buyout with some risk attached, troubling Gulf managers concerned about future returns for shareholders.

Then, even though he arrived at Gulf's Pittsburgh office a day later than his bidder competitors, Socal Chairman George M. Keller's $80 per share offer was the one accepted by Gulf's directors, and Arco graciously bowed out.

Gulf's jobbers, who had been desperately trying to learn what was going on, learned along with everyone else in early March that the deal had been consummated with Socal, subject to federal government approval.

"We got our first direct word from the company about 4:30 or 5 yesterday (March 6)," said one jobber. "The Gulf district people called to say Gulf's marketing department had just completed a conference call with Socal's people. They said Gulf's marketing department will become a division of Socal, but everything will remain the same. There will be no change whatever."

This jobber and other sources, however, found it difficult to believe that no changes will occur. In fact, a Socal spokesman said right after the Socal/Gulf deal became public knowledge that he assumed some overlapping refining and marketing assets would have to be divested to gain Federal Trade Commission or Justice Department approval. What's more, Socal's Keller acknowledged to reporters early last month that a "significant portion" of Gulf's downstream operations would have to be sold to clear government hurdles, and even intimated that Socal already had gotten a few nibbles for Gulf properties.

Many Gulf jobbers, therefore, found private assurances from company reps sounding rather hollow. "Gulf's marketing people have been living off rumors for months now," said one jobber. "Socal wants to settle them down and get them out selling. They are telling them everything will be rosy, but you know it won't be."

Another Gulf jobber said the situation was all too scary for him. "I'm waltzing around now, trying to find another supplier I can fall back on," he said. Many Gulf jobbers were concerned about losing the company flag and coping with new credit card policies.

"The members are concerned about it, especially the ones who know they wouldn't get the Chevron brand," said a spokesman for Atlanta-based Gulf Oil Wholesale Marketers Assn. (GOWMA). "There are others who might be able to convert, but who would be competing against existing Chevron jobbers.

"But GOWMA members are not so much concerned about a source of supply, because that is protected by the Petroleum Marketing Practices Act. They are most concerned about losing the flag," he said.

Socal's Keller: 'White knight' is prepared to spin off most of downstream Gulf.

Other Gulf marketers wondered about the differences in credit card policies. "You know Gulf has the free card, and Chevron, the cash discount," said one. "There could be some pluses and minuses, though, if the cards are interchangeable."

### Marketing Staffs

Almost everyone expects to see substantial trimming of Gulf and Getty marketing staffs as these companies are merged into the operations of their new owners.

"One of the obvious merits of a merger comes from the combination of human and technical resources of each company," said a Socal spokesman. Adds a financial analyst: "You can cut out a lot of general and administrative expenses.

That's what makes some of these deals work."

Tom Differ, senior marketing vice president of Getty, has told friends he is at early retirement age and willing to step down. His main concern reportedly is the welfare of Getty marketing employees. Many of these could remain in place until Texaco completes its divestment of most Getty downstream assets.

Socal spokesmen have said it plans to retain many of Gulf's marketing people. Gulf, however, was in the process of making substantial staff reductions prior to the merger. Ron Hall, marketing vice president who came over from Shell in the fall of 1982, was reducing both the marketing staff and Gulf's network of direct-supply stations [NPN—June '83, p36].

Gulf's top officials are expected to be the first to go, despite public statements by Keller that he welcomed Gulf Chairman James Lee and other executives to the Los Angeles company. According to a Gulf proxy statement, the company's 13 directors and an unspecified number of corporate officers held outstanding stock options for 1,253,800 shares at $31.47 a share. If sold at Socal's acquisition price of $80 a share, the group collectively would make $60.1-million. Some top executives reportedly stood to pile up between $2-million and $4-million from their stock benefits.

In addition, some Gulf marketing employees repeated company rumors that the Gulf board, prior to the merger, set aside lucrative severance pay arrangements for top executives.

### Getty Liquidation

Marketers couldn't help but feel a bit unwanted as they watched Texaco quickly agree to sell off virtually all of the Getty refining and marketing assets in exchange for Federal Trade Commission approval of its acquisition.

Texaco's primary interest in Getty, obviously, was the latter's approximately 2-billion bbl. of crude oil and 2.8-million mcf of natural gas reserves. Wall Street figures that Texaco more than doubled its proved reserves of crude at a cost of less than $6 bbl.—versus finding it for $10 bbl.

Texaco agreed to divest itself of nearly all of Getty's downstream assets in 28 states with the exception of one East Coast and one West Coast refinery. It will also retain a handful of service stations in the Northeast. [See page 25 for breakdown.]

FTC gave its tentative approval for the Texaco/Getty merger on Feb. 13. After a 60-day public comment period, final approval was expected. Following this period, Texaco will have one year to shed the downstream properties.

Getty is said to have had a marketing staff of about 3,800 employees. The company supplied 582 jobbers in the Northeast and Midwest. It is doubtful much of the marketing staff will be retained and many of the jobbers are already scrambling for new supply connections.

The plight of Getty jobbers is especially critical in the Midwest, sources in that region say.

What happens to the Getty jobbers "worries the hell out of us," says Ed Kistenmacher, managing director of Petroleum Marketers of Iowa. "We are anxious to see what NOJC will do. We've seen Champlin and Mobil pull out of Iowa. We've seen Texaco and Gulf leave. Now we're losing Getty, a well-managed and respected company. We've lost a lot of (supply) options for people who want a brand." [See related story page 57.]

Gerald Everett, executive director of the Northwest Petroleum Assn., says some 60 to 70 Getty jobbers in Minnesota are "all upset." "We've lost so many suppliers in recent years that they really don't know where to turn," he says.

Texaco pulled out of the region about four years ago. "Some are speculating that Texaco may come back in now, but we don't hear a doggone thing," said Everett in late February.

Jobbers attending some of the early annual meetings in the Midwest were bom-

## Company Ranking by Upstream Clout

| | | Proved Reserves* | | | | | |
|---|---|---|---|---|---|---|---|
| | | U.S. | | Foreign | | Total | |
| | Assets *($ Billion)* | Crude Oil *(Million bbl.)* | Natl. Gas *(Mil. mcf)* | Crude Oil *(Million bbl.)* | Natl. Gas *(Mil. mcf)* | Crude Oil *(Million bbl.)* | Natl. Gas *(Mil. mcf)* |
| **Exxon** | 62.3 | 2,800 | 16,500 | 3,600 | 12,200 | 6,400 | 28,700 |
| **Mobil** | 36.4 | 906 | 6,334 | 1,349 | 10,293 | 2,255 | 17,257 |
| **Texaco** | 27.1 | 740 | 5,799 | 793 | 2,416 | 1,583 | 8,215 |
| **Stand. of Ind.** | 24.3 | 1,660 | 9,007 | 980 | 6,049 | 2,640 | 15,085 |
| **Stand. of Cal.** | 23.5 | 1,101 | 4,764 | 355 | 1,153 | 1,456 | 5,917 |
| **Arco** | 21.6 | 2,561 | 14,438 | 149 | 549 | 2,710 | 14,987 |
| **Shell** | 21.4 | 1,178 | 5,326 | 32 | 126 | 1,210 | 5,452 |
| **Gulf** | 20.4 | 816 | 3,901 | 1,152 | 1,804 | 1,968 | 5,705 |
| **Tenneco** | 17.4 | 246 | 3,208 | 146 | 166 | 392 | 3,374 |
| **Sohio** | 16.0 | 1,791 | 4,816 | Neg. | Neg. | 1,791 | 4,816 |
| **Phillips** | 12.1 | 492 | 3,432 | 423 | 3,245 | 915 | 6,677 |
| **Sun** | 12.0 | 691 | 3,148 | 92 | 486 | 783 | 3,634 |
| **Getty** | 9.9 | 1,240 | 2,396 | 700 | 345 | 1,952 | 2,741 |
| **Union** | 8.5 | 523 | 5,170 | 205 | 1,223 | 728 | 6,393 |
| **Amer. Hess** | 6.1 | 260 | 993 | 512 | 1,151 | 772 | 2,144 |
| **Ashland** | 4.2 | 6 | 208 | 12 | 0 | 18 | 208 |
| **Kerr McGee** | 3.8 | 60 | 740 | 79 | 118 | 137 | 858 |
| **Diamond-Sham.** | 3.2 | 33 | 846 | 1 | 34 | 34 | 880 |
| **Murphy** | 3.0 | 43 | 314 | 122 | 291 | 165 | 605 |
| **Amer. Petrofina** | 1.2 | 36 | 192 | 0 | 0 | 36 | 192 |
| **Crown Central** | 1.0 | NA | NA | NA | NA | NA | NA |

***Data compiled from 1982 company annual reports.***
****Crude oil reserves include volume of natural gas liquids.***

barding supplier representatives with merger questions at brand meetings. According to most reports, however, the reps were as much in the dark as the jobbers about what to expect next.

Some Midwest Getty jobbers were taking their plight rather calmly, though.

Jim Seedorff, a 2-million-gal.-a-year Iowa jobber who has flown first the Skelly and then the Getty flag for 22 years, said Getty marketing reps have told him to "just sit tight," that someone might buy the Getty package from Texaco and "will want to do business with us." He isn't looking for another supplier because he doesn't want to "jump too quick."

Texaco claims it has had "many inquiries" from parties interested in purchasing the Getty Midwest properties. There has been speculation that Williams Brothers or Koch might buy part or all of the refining and pipeline properties. Some sources estimate that an asking price for the Getty refinery in El Dorado, Kan., would be in the $350-million range, while the tab for the refinery and Getty's interest in the Chase pipeline could be around $500-million.

Some sources believe all of the properties could be had at a bargain, but, as one independent says, "Who wants to buy a refinery or service stations today?

### 'J. Paul Liebowitz'

Even prior to obtaining FTC's tentative approval to purchase Getty, Texaco agreed to sell 600 Getty service stations and nine terminals in 11 eastern states to Power Test Corp. of Plainview, N.Y., a large East Coast independent chain retailer. Under terms of this agreement, Power Test would also become the supplier of approximately 40 to 50 former Getty jobbers and to about 1,300 service stations owned by them or independent dealers.

The Getty/Power Test agreement was reportedly a $90-million deal. It didn't sit too well with some of the Getty jobbers.

Fairlawn Oil Service Inc., Lincoln, R.I., sued in federal court to block Texaco's acquisition of Getty. Fairlawn claimed in its request for a restraining order that the transfer of Getty's marketing assets to Power Test would add another middleman and lead to higher prices. The court refused to grant Fairlawn's request.

Leo Liebowitz, president of Power Test, was quickly dubbed "J. Paul" by fellow independents following the deal he struck with Texaco. The Society of Independent Gasoline Marketers of America, nevertheless, said it "vigorously" opposed the Texaco/Getty merger, believing such combinations will eventually limit the amount of supply available to independents.

Jack Griffith, president of National Oil Jobbers Council, said the entrance of Power Test as a supplier for the former Getty jobbers meant "another step in the profit sharing."

(See page 25 for a separate story on Power Test.)

Griffith said NOJC had, up to the Texaco/Getty merger, taken a "hands-off" approach to such mergers, primarily because it usually has jobber members on both sides. Then, after the stunning Socal/Gulf development, NOJC moved not only to file comments with the Federal Trade Commission opposing the Texaco/Getty merger but also to seek legislation to halt temporarily such oil company mergers.

"I believe that it is time," said Griffith, "for all marketers—even those who may see a short-term potential gain—to realize that neither independent marketers nor the consumers they serve are winners when the giants of the oil industry merge."

Such mergers siphon off money which might otherwise be used to find more oil reserves, he says. "They (also) limit supply sources for independent marketers and lessen competition in the industry as a whole.

"I don't believe NOJC can stand on the sidelines any longer and watch a real-life monopoly game unfold which has a substantial impact on the long-term viability of the companies it represents," says Griffith. "We must oppose in every way future mergers . . . until a thorough analysis by a responsible government body is completed."

### Fight For Gulf

Texaco's acquisition of Getty moved with such lightning speed that it was accomplished before much opposition could be raised. Texaco struck swiftly over a weekend, snatching Getty from Pennzoil, which earlier thought it had a deal to buy the company. Pennzoil later brought lawsuits against both Texaco and Getty, but none seemed likely to affect the final outcome.

Then, for a short time, it looked as though Pennzoil was going to deliver an incredible counter-punch to Texaco. Stories circulated early last month that Pennzoil was teaming up with the wealthy Bass family of Ft. Worth to stage a "Pickens-style," David-and-Goliath raid on Texaco. Bass Brothers Enterprises, which had amassed nearly half of its 9.9% block of Texaco stock since only January, sold its whopping stake back to Texaco for a cool $1.28-billion the day after Gulf and Socal closed up their deal.

The same anything-goes mentality prevailed back in late February, when Gulf, the nation's fifth-largest oil company, was being forced to seriously consider various alternatives.

One story has it that Chairman Lee, who once reportedly said he "didn't have the stomach" for takeover fights (from either side of the trenches), stole away for a few days that month to the isolated woods of Louisiana to ponder his and Gulf's future. Lee, a Mississippi native, and an old oil industry friend were together shooting quail, one of Lee's favorite pastimes. Yet, even the serenity of those back woods could not coax his mind out of the boardroom. As they watched for game, Lee was agonizing with his friend over what should be the proper or moral course of action, if Arco made—as it later did—an attractive offer for his company.

Later that month, what options earlier seemed unthinkable were being filed with the Securities and Exchange Commission. Gulf's statement said it was considering a leveraged buyout, an acquisition by another company, a tender offer for its own shares and the sale of equity or other securities of the company.

This, brought on by another hunter himself, Mesa's Pickens, whose dissident shareholders' relentless campaign for a Gulf royalty trust to disperse oil revenues among shareholders and whose $65/share

### A Pair of 'Sisters' Combine . . .

*(market share data does not reflect any divestment orders)*

| | Gulf | Socal | Total |
|---|---|---|---|
| **Kentucky** | 11.04% | 12.94% | 23.98% |
| **Maine** | 13.51 | 8.70 | 22.81 |
| **Arizona** | 2.71 | 19.14 | 21.85 |
| **Georgia** | 11.02 | 9.21 | 20.23 |
| **Mississippi** | 8.01 | 10.77 | 18.78 |
| **California** | 2.51 | 15.42 | 17.93 |
| **Alabama** | 7.54 | 10.20 | 17.74 |
| **Florida** | 7.21 | 9.74 | 16.95 |
| **Tennessee** | 12.73 | 4.45 | 16.82 |
| **New Mexico** | 3.07 | 11.91 | 14.98 |
| **Texas** | 12.53 | 1.48 | 14.01 |
| **Nevada** | .01 | 12.87 | 12.88 |

**National: Socal/Gulf will have 10.1% of market, highest in history. Texaco had 8.5% in 1971, previous high.**

Source: Lundberg Survey

tender offer in late February to raise its Gulf stake to 21.3% and slate its own company directors eventually forced Gulf into a shotgun wedding with Socal.

### Inadequate Defense?

The stakes for the jobber segment of Gulf were very high. Gulf had 1,715 jobbers at the end of 1982, and had its flag up at 14,598 retail outlets in 22 states. Jobbers agreed, as they watched the round-by-round battle for Gulf in late February, that any merger or takeover could be devastating to their segment.

As Pickens' group headed up one offensive after another and then, different suitors paraded through financial records which Gulf laid bare for bidders to examine, many jobbers felt the downstream properties would be treated like disposable wrapping on the upstream jewels.

One said whoever picked up Gulf "would try to sell off the refining and marketing assets. But who would buy them? That's the big question for jobbers."

Some of the company's jobbers criticize management for not taking steps sooner to protect the company from a takeover attempt.

"They dickered with Superior and could have bought that company, but they decided the price was too high," said one. "They looked at Getty for $75 a share (Texaco paid $128), but decided to pass that one up, too. They sat on their butts and they didn't find any oil. You either buy companies with crude today or you get out and find the stuff."

This jobber, as well as some others, believe Pickens had a point in claiming that many top corporate oil executives are more interested in protecting their "perks" than shareholders' interests. "I think he has stirred up shareholder interest in what's going on at all companies."

For his part, Pickens has made off like a banker for his rabble-rousing. Company records show his aborted takeovers of Cities Service and General American in 1982 netted Mesa Petroleum nearly $74-million. And, now, if the Mesa investor group sells its 13.2% share of Gulf to Socal at its $80/share price, Mesa pockets a numbing $507-million of the group's $706-million winnings.

But for the losers, most Gulf jobbers don't blame Jim Lee for the passing of Gulf. In fact, many of them give him credit for "turning the company around"—especially after the political slush fund scandal that sacked Gulf's top brass in the mid-'70s—before Pickens began to preoccupy Gulf officials.

"It was mismanaged by fat cats for 20 years before Jim Lee came in," says one jobber. "He began trying to cut costs and do something with marketing. He was doing a good job too. But he couldn't trim the fat down fast enough. The big-money boys just saw the company as a big, old, fat wounded cat, and they went after it."

**Southeast raises antitrust concerns, where Socal's 280,000-b/d Pascagoula plant joins Gulf's combined 612,000-b/d capacity.**

**T. Boone Pickens, whose corporate raids since '82 brought Mesa $681-million, this month faces a Texas jobber meeting.**

### Independent Reaction

Although SIGMA quickly condemned the Texaco/Getty merger and said it remains opposed to fewer and fewer companies gaining control of crude oil supplies, some independents didn't seem too concerned over the Texaco/Getty merger.

"Everytime one goes out, you've lost one more supply option, but I philosophically believe a company ought to be able to do with its assets what it wants to, within reason," said Tom Love, president of Musket Corp., Oklahoma City.

Large chain retailers like Love, of

## What Mergers Total in People and Properties

| | Gulf | Socal | Total# |
|---|---|---|---|
| **Refineries** *(1/83)* | Five | Twelve | 17 |
| *(thousands b/d)* | 881.1 | 1,469.7 | 2,350.8 |
| ***Retail outlets** | 14,598 | 12,403 | 27,001 |
| ****Jobbers** | 1,715 | 777 | 2,492 |
| **Employees** *(12/83)* | 43,000 | 40,000 | 83,000 |

**# Socal/Gulf figures do not reflect divestiture of refining and marketing assets**

| | Getty | Texaco | Total## |
|---|---|---|---|
| **Refineries** *(1/83)* | Three | Nine | 12 |
| *(thousands b/d)* | 278.2 | 937 | 1,215.2 |
| ***Retail outlets** | 4,494 | 18,692 | 23,186 |
| ****Jobbers** | 582 | 1,176 | 1,758 |
| **+Employees** | 19,000 | 56,000 | 75,000 |

***Total company-/jobber-owned end of 1982**
****1982 Figures**
**##Texaco/Getty figures do not reflect properties slated for divestiture per the February 13 consent order of FTC.**
**+Getty employee figures for 12/83; Texaco, for 9/83.**

course, could gain if the mergers continue and marketing properties are spun off.

An analysis of Getty's operations, according to one report, showed the company was making an overall return on assets of about 11%, but refining and marketing was making no contribution. If Getty had spun off refining and marketing, its return on assets would have changed from 11% to 18%.

Top management at other companies will be taking a harder look at such results in the future, some independent marketers believe, and could begin making some tough decisions.

"The honeymoon is over for traditional-type marketing," says an independent. He thinks some companies geared to jobber-type operations may soon conclude that direct-type marketing is best.

Whatever happens as the merger waters continue to boil, almost all branded and unbranded marketers look for big changes to occur in the near future.

## What Texaco Sheds To Seal Getty Deal

**In order to get Federal Trade Commission approval for its acquisition of Getty, Texaco readily agreed to sell off nearly all of Getty's downstream marketing assets. Here is a breakdown of properties sold or to be sold:**

—Approximately 2,931 Getty-owned stations. Of these, 2,300 are in 15 Midwest states (Colorado, Illinois, Indiana, Iowa, Kansas, Minnesota, Michigan, Missouri, Nebraska, North Dakota, South Dakota, Oklahoma, Wisconsin, Wyoming and Texas). The remainder are in 11 eastern states (Maine, New Hampshire, New Jersey, Pennsylvania, Delaware, Maryland, Vermont, Massachusetts, Rhode Island, Connecticut and New York).

—An 80,000 b/d refinery in El Dorado, Kan., plus Getty's share of the crude lines associated with it.

—Texaco will keep Getty's 140,000 b/d refinery in Delaware City, Del., but dispose of a smaller Texaco plant at Eagle Bay, Del.

Getty was in the process of selling 30 former Mohawk stations it had in California before merging with Texaco.

Getty had 582 jobbers at the end of 1982. Power Test will take over supply commitments for many in the East. Several suppliers, mostly second-tier majors, are expected to compete for the jobber accounts in the Midwest. Market sources say many of these accounts are small, however, under the 5-million-gal.-a-year minimum size many suppliers now seek.

Texaco agreed to continue supplying product to Getty jobbers and dealers in the East through Power Test, and agreed to supply crude oil at the rate of 100,000 b/d for the next five years to 17 independent refineries in California formerly supplied by Getty.

# Texaco's $90-M Spinoff Makes Power Test Awesome Atlantic Force, No. 1 U.S. Indie

**It's only a matter of days now—presuming that the Texaco/Getty merger will be officially sanctified in Washington as scheduled—until Power Test Corp. reaps the wild wind too. A secondary beneficiary of the phenomenal $10.1-billion Getty Oil acquisition, the Plainview, N.Y., company overnight will become the nation's No. 1 independent gasoline marketer, a veritable corporate giant among its erstwhile Lilliputian peers.**

About the only "independent" of comparable size will be Southland Corp., the giant C-store chain which will have more service stations and more gallonage than Power Test. But since it acquired a 280,000 b/d refinery last year when it purchased Cities Service, Southland is properly lumped into the refiner-marketer league, not an indie marketer only.

Power Test's star will flash high above the horizon because for approximately $90-million, it will acquire virtually all of the marketing operations that Getty had in the East. This includes about 600 to 700 Getty-owned or operated stations and about 1,300 others, of which 700 are contract dealers and 600 are supplied through 41 jobbers, nine terminals, a fleet of transport vehicles, an in-place marketing staff and a distillate fuel oil market exceeding 450-million gal. a year.

In one fell swoop, Power Test will burst forth from its present five-state, 200-million-gal.-a-year gasoline world and become:

- The biggest truly independent gasoline marketer in the land with 2,500 service stations in 11 East Coast states from Maine to Virginia, and as far west as the Ohio border.
- The wholesaler-retailer of an annual gasoline volume believed to be well over 1-billion gal. a year, more likely in the neighborhood of 1.25-billion gal.
- An awesome, independent heavyweight in the distillate fuel oil market, something it had only had a minor interest in before. The Power Test volume—based on Getty figures and Texaco's commitment to supply 11-million bbl. a year for three years—is estimated at 450-million gal., give or take.

Mastermind and prime architect of the Power Test eruption is mild-mannered, soft-spoken Leo Liebowitz, its president and one of the co-founders of the firm. Liebowitz and executive vice president Milton Safenowitz have been business partners since 1955 when they became Sun dealers at a station in Queens, one of the five boroughs of New York City.

He and James Kinnear, vice president of Texaco U.S.A., negotiated the deal literally over a weekend, not long after Texaco stepped out of the shadows and outbid Pennzoil Corp. for the Getty empire. The divestiture was a matter of necessity for Texaco to minimize antitrust problems and insure federal approval of the acquisition.

Liebowitz said he had no plans to rebrand the Getty stations as Power Test units.

"Getty has a good name and we're going to go with things as they are," he said. "The Getty operation will become another Power Test subsidiary, that's all.

"We hope too that we can take aboard as many of the Getty marketing people here in the East as possible.

**Liebowitz: From Sun dealer in Queens in 1955 to Number One indie powerhouse.**

"We can't talk too much about our plans yet because we still have to wait for final FTC approval of the Texaco/Getty merger itself, and our contract to buy can't be implemented until that is approved in Washington."

FTC's clock will run out 60 days after publication of the agreement in the Federal Register. This had not been done by March 1. Thus, Power Test will not actually be in control of the Getty appa-

TEXACO
REGULAR
103 9
UNLEADED
108 9
125 9
DIESEL
124 9

**In some cases, such as this one in Morristown, N.J., Texaco will supply product to its station as well as a competing Getty outlet (down the road, on the right) under Power Test.**

ratus until roughly the early part of May—assuming also that there'll be no court injunctions or suits which delay the proceedings.

Of the 2,000 or so Getty stations, most are lessee or dealer operated—a route that Liebowitz prefers. The majority of them are full-service stations, and industry sources indicate they average about 40,000 to 50,000 gal. a month.

Power Test has a mix of stations too. Its overall average is around 50,000 gal./month, but it has a goodly number of "gas-only" stations which are close to 100,000 gal./month. Although Liebowitz didn't say so, some industry sources said he'll probably shoot for 100,000-gal./month from some of the better Getty stations with good traffic counts.

## Melding Marketing Styles

There were some feelings of apprehension among the Getty stations and contract outlets slated for transfer. Some retailers said they had heard that Liebowitz was a very tough driver, while others wondered whether the inter-laying of a jobber as a source of supply, rather than an oil company, might put an even tighter squeeze on their already thin margins.

Asked whether there might be changes given the fact that Getty usually ran a penny or so above the market and Power Test discounted in the other direction, Liebowitz merely commented: "We're going to continue operations as they are for the time being. As things settle down, we'll look at the competitive factor for each station and make our decisions accordingly."

What about gasoline grades? he was asked. Getty recently became a two-grader on the East Coast—unleaded regular and unleaded premium, while Power Test has traditionally paralleled the market pattern of three or more grades. "No change for now," said Liebowitz. "We'll just have to see what it looks like after the acquisition goes through and we have a chance to become fully acquainted with markets and situations."

Liebowitz has never publicly discussed his company's plan to finance the $90-million purchase of the Getty combine. He was very blunt, though, in disposing of field reports that he had gotten a "sweetheart" deal from Texaco.

One version said Texaco had loaned Power Test the money for the purchase; another said Texaco had agreed to a no-down-payment and no-interest-for-five-years proposition. "The people saying that don't know what they're talking about," said Liebowitz. "It's just not true, that's all. We should have such nice things happen to us!"

As for lessees, one thing they can be sure of: Their rents will be tied in with the real estate value, not the gallonage. So, greater volume will mean more money for them but not necessarily an increasingly upward tilt in the rent.

(A Getty spokesman said only that its station rents had been determined a variety of ways.)

Power Test's contract with Getty provides that Texaco will supply it with 22-million bbl. of gasoline a year to take care of the Getty stations. Could this set up situations where Texaco-supplied gasoline at a Getty station would be competing with Texaco gasoline at a Texaco station across the street?

"What's unusual about that?" asked Liebowitz. "We buy gasoline from a variety of suppliers and sell it as Power Test against all competitors. Besides, Texaco accounts for only a small part of our supply at the present time, and there's no requirement that we have to buy more from it. We have a number of suppliers."

Also part of the contract, Liebowitz will get nine Getty terminals. They're located in Long Island City, Rensselaer, and Setauket, N.Y.; Newark, N.J.; West Philadelphia, Pa.; Seaford, Del.; Providence, R.I.; South Portland, Maine, and New Haven, Conn.

The new lineup will give Power Test a major wallop in East Coast gasoline marketing. It won't be No. 1 in any of the dozen states involved but will be a bigger marketer in many of them than such big league names as Chevron, Exxon, Amoco, Mobil, Citgo, Sun and Phillips. It's biggest representation will be in New York, where it will have almost 900 sta-

### Getty/Power Test Networks, State by State

| | Getty | Power Test* | Post-Sale Combined |
|---|---|---|---|
| **Maine** | 99 | — | 99 |
| **New Hampshire** | 79 | — | 79 |
| **Vermont** | 71 | — | 71 |
| **Massachusetts** | 253 | 28 | 281 |
| **Rhode Island** | 68 | — | 68 |
| **Connecticut** | 168 | 36 | 204 |
| **New York** | 551 | 339 | 890 |
| **New Jersey** | 470 | 57 | 527 |
| **Pennsylvania** | 205 | 2 | 207 |
| **Delaware** | 41 | — | 41 |
| **Maryland** | 51 | — | 51 |
| **Virginia** | 1 | — | 1 |
| **Totals** | 2,057 | 462 | 2,519 |

***328 of Power Test's units are direct-ops, 134 leases; 430 are full-service, 32 self-service and split island.**

tions. That's only a handful behind Exxon, which ranks No. 3 in New York state.

Several years ago, *NPN* did a major article on Power Test, noting that it was the East's "New Powerhouse Marketer" [NPN—Feb. '79, p63]. In a splurge of buying the preceding year, Power Test had built up its service station string to 465 outlets. Late last year, Power Test still had only 462 stations. What happened in the interim?

"The total is about the same," said Liebowitz, "but in the intervening years, we pruned some and added some. So, what we have now are better and stronger stations. We've also expanded our C-store concept and currently, we have 65 stations in the food and grocery business, along with gasoline.

"Our headquarters fills 22,000 square feet of space in Plainview [about 30 miles out on Long Island from New York City] and we have seven district offices as well as three terminals. Soon we'll have a lot more. Power Test will be a much bigger and much stronger competitor here in the East."

—*J. Richard Shaner*

## Mergers' $47-Billion Spent in 32 Months

| | Acquirer | Cost *(bil. $)* | Date of deal |
|---|---|---|---|
| Conoco | Du Pont | $7.4 | 7/6/81 |
| Marathon | U.S. Steel | 6.5 | 11/19/81 |
| Citgo* | Occidental | 4.0 | 8/3/82 |
| Getty | Texaco** | 10.1 | 1/6/84 |
| Gulf | Socal** | 13.2 | 3/5/84 |
| Superior | Mobil | 5.7 | 3/12/84 |

***Cities Service downstream assets later sold to Southland Corp. last March.**
****Subject to final FTC approval.**

## Feds Signal Oil: Merge Now, While 'Big is Not Bad'

**"If oil companies are inclined to merge, now is the time to do it. The present administration is very liberal about such things, and will let almost anything go through," says an independent marketer.**

It certainly seems this is so.

Of all the possible interpretations of the Federal Trade Commission's tentative approval of the Texaco/Getty merger, the clearest message that emerges is that big no longer is bad.

Nowhere in the documents relating to the case does it discuss the sheer size of the companies involved. Texaco was the industry's third largest company and the fourth largest industrial corporation in the U.S. before acquiring Getty, the industry's 13th largest.

James Miller, FTC chairman, said the consent order "provides important safeguards" against future anticompetitive effects stemming from the merger.

FTC voted 4-1 to approve the consent order after Texaco agreed to sell off most of the Getty refining and marketing assets.

The lone dissenter, commissioner Michael Pertschuk, argued that the order will "be the latest in a series of second-tier oil firms to disappear as independent companies." He says the long-term effect of their disappearance could mean "tighter and tighter control of the oil industry by the major companies."

The "green light" has been given to other major oil company mergers, Pertschuk believes.

Interestingly, while FTC was giving a quick okay to the Texaco/Getty deal, the Justice Department was saying it would sue to block a merger between LTV Corp. and Republic Steel on the grounds that such a merger would increase concentration in three product lines.

To add still another contradiction, however, FTC also recently approved a General Motors' proposal to produce cars jointly with Toyota Motor Co.

Sources in Washington say FTC seems more in line with Reagan administration policy than the Justice Department. Justice antitrust chief J. Paul McGrath reportedly was called onto the carpet at the White House in late February shortly after blocking the LTV-Republic deal. Weeks later, Justice reversed itself and cleared the deal.

Mergers are usually handled by either Justice or FTC, depending on which has previously investigated the industries involved. However, this has not always been the case.

When Mobil wanted to acquire Conoco, Justice insisted on investigating before FTC took over. The delay may have kept Mobil from getting sufficient clearance before DuPont got Conoco.

But whatever agency handles such merger cases now, the general policy in Washington at present seems to be to let them past with minimal intervention.

This was not so with past administrations, of course, and the situation could quickly change under a new one.

"This is one reason I think we'll quickly see more mergers," says one marketer. "The oil companies know they better act now while Reagan is in office."

"It's an interesting situation," says a jobber association executive. "It looks like the companies are taking advantage of a green light from Washington and plan to run over everyone. Our jobbers are in a quandry, though. A change in administration might bring them worse things than this."

## Georgia Divorcement Bill Awaits Signing

**Georgia is on the verge of becoming the fifth state in the nation to adopt a divorcement law that will ban suppliers from operating their own service stations after July 1, 1985.**

There is a "grandfather" clause in the law, however, that will permit refiners to continue to operate their own stations that were in place on Feb. 20, 1984.

The divorcement bill was pushed through both houses of the Legislature in a surprise maneuver triggered more or less by the Georgia Assn. of Petroleum Retailers and aided by a small group of independent jobbers at the eleventh hour.

The maneuver was accomplished by substituting the language in another bill. The house quickly adopted it 112 to 51, and the senate followed that up with a resounding 45 to 7 vote of its own.

Gov. Joe Frank Harris has roughly until the first of this month to sign or veto the bill. But the retailers were confident that he would give it his endorsement.

"He's a small businessman himself, and he knows our problems," said one dealer representative. "We'd be the most surprised if he rejected the bill—especially in view of the lopsided votes of approval in both houses of the legislature."

The events coincide with a similar bill now winding its way through the California Legislature, having picked up a rare endorsement from the Los Angeles-based Serve Yourself & Multiple Pump Assn. [See story on page 60.]

If Georgia does authorize the divorcement law, it will join Connecticut, Delaware, Maryland and Virginia as states which have such canons. Pennsylvania is struggling with one too, but it is not known whether it can be salvaged from the legislative mess it is in now.

Georgia retailers say about 400 of the 11,000 gasoline stations in the state are direct-ops.

Meantime, Georgia marketers still are awaiting a decision from the State Supreme Court on the interpretation of a law that will inhibit jobbers in retailing gasoline in the state.

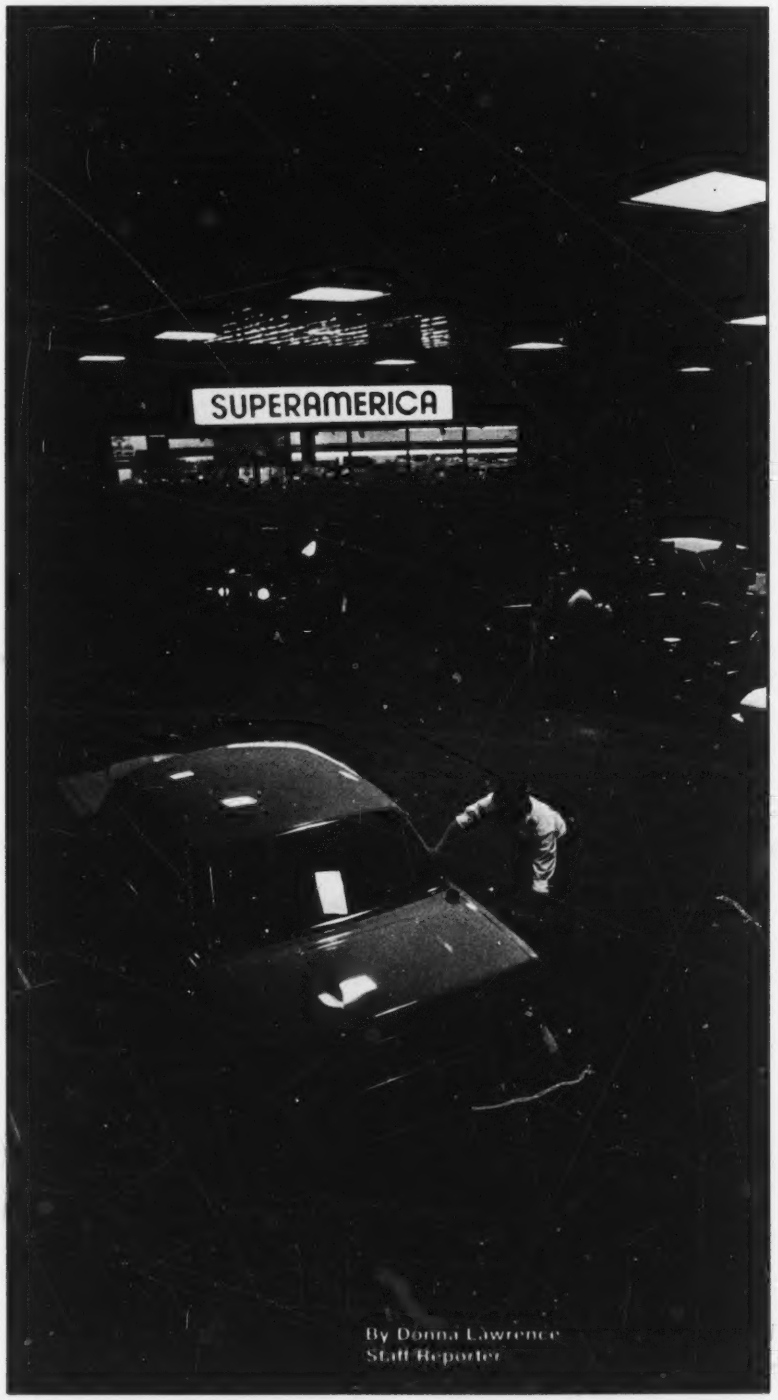
The case went up to the high court last summer, but it has been logjammed behind a mountain of other appeals. Indications now are that it will be this month or May before action can be expected.

The case seems relatively clear cut: Can jobbers take advantage of their lower wholesale costs to reduce pump prices in competitive marketplaces, especially where they are competing head-on with retailers supplied by them?

A fuzzy law passed by the Legislature seems to say "no, they can't." Therein lies the appeal.

## Can You Afford to Enter Crowded Field?

# Why C-Stores Lead Gasoline Markets



By Donna Lawrence
Staff Reporter

**In the early Sixties, the strategy of building food mart/gasoline outlets was considered questionable. And, the gasoline pumps that later sprang up outside "mom and pop" convenience stores were not taken seriously.**

But in the last 10 years or so, convenience store outlets have seized an estimated 12% to 15% share of the retail gasoline market, up from 1% in 1974, and the convenience/gasoline craze can no longer be taken lightly.

John Roscoe, a store industry analyst, estimates there were 50,000 C-stores in 1982, with almost 60% selling gasoline. Roscoe says these stores sold 11.9-billion gal. of gasoline that year, or 12.09% of the national market.

"It is likely that the number of units, the amount of gasoline sold, and the percentage of the national market supplied by convenience-type stores is higher than the figures shown in my estimate," he says.

There were only 3,500 C-stores in the country in the early 1960s, according to the National Assn. of Convenience Stores, and only a handful of those offered gasoline. Now, NACS' most recent 51,150 nationwide tally is considered conservative. Almost half those numbers were estimated to be selling gasoline, but the count excludes stores of less than 1,000 square feet, eliminating many oil industry conversions and kiosk operations.

"It is difficult to pin down all the minimarts," says Mike Scanlon, policy vice president of the National Oil Jobbers Council, adding that 40% of NOJC's individual jobber/members own C-stores. Between 1980 and 1982, the number of members owning stores swelled from 7,500 to 8,868. "All our members carry extraneous items that would not fall into petroleum products or related TBA items," clarifies Scanlon.

The service station population has declined by more than a third over the past 10 years. And, the high-volume, gasoline-only pumper of recent years has been fading, as even major oil companies with choice locations are fighting to offset shrinking fuel demand by stocking snacks and cigarettes.

"We're going to be pretty aggressive in the development of mini-stores," says Sam Van Sickle, Amoco's marketing vice president. "The dealer today has to operate on a minimum margin, and we are looking for any place we can establish ancillary income."

The bottom line is cost efficiency. The C-store boom can be attributed to the 3¢ to 5¢ gal. operating margins that can be squeezed from a successful store. NACS' 1982 average pooled gross margin for convenience stores was 20.8%, combining a store margin of 30.1% with a mere 4.5% for gasoline.

"Years ago, if you could have grocery

items for gasoline customers, it was just a good tie-in," says Leroy Rodden, vice president of Mid-State Oil Co. in central Missouri. "Now, it's a necessity in order to survive."

As the oil marketers build store sales to boost margins, the convenience store operators are installing pumps to increase customer traffic. Industry figures for 1982 indicate the average sale per customer rises from $2.07 at a store without gasoline to an average $3.46 at a store with pumps.

"We are selling convenience," explains Tom Ewens, senior vice president, National Convenience Stores Inc. (NCS), "and gasoline is a natural extension of that."

## Stores Take the Lead

During the mid-1970s, private-brand independents with their self-serve pumpers posted the lowest prices in town. These high-volume units generally were believed to be the most cost-efficient way to retail gasoline. But the C-store seems to have usurped the pumper in many markets, and now it is the stores which are often fingered for cut-rate competition.

"The multi-product marketers (convenience stores) who cut prices below cost at the pump and 'cover' the loss with markup on beer, bread, milk and sandwich meat" is one of the major forces behind below-cost selling in Ohio, according to Roger Dreyer, executive vice president of the Ohio Petroleum Marketers Assn. His sentiments are echoed in other markets where C-stores have flourished.

"If we choose to remain a two-bay service station operator, somebody's going to eat our lunch," laments one independent.

Of course, gasoline marketers with C-stores claim they are not guilty as charged, but merely equipped to sell gasoline on less margin.

"We feel that in a C-store you can get by with a lower margin," says Mid-State's Rodden. "We like to get an 8¢ gal. margin. It takes 10¢ gal. to operate a service station," says Rodden, noting central Missouri prices are not as competitive and margins not as slim as in urban areas.

In the early Seventies, when the rush to C-stores developed, it cost from $4,500 to $6,000 per month on average to operate a lessee-type service station. But marketers found they could operate a self-serve "pumper" or a salaried C-store with gasoline for about $3,500 to $5,000 a month.

A lessee dealer operating on a 10¢ gal. margin needed to pump 45,000 to 60,000 gal./month to break even. A self-serve pumper could get by on 100,000 gal. at 5¢ gal., or half the dealer's per-gallon margin requirement. But the salaried convenience store could beat them both. All a store owner had to do was sell $15,000 inside at a 20% markup, meeting $3,000 of his operating costs, then muster up the other $2,000 pumping 40,000 gal. on a 5¢ gal. margin.

"It seemed like the perfect marriage," says one midwestern independent.

Some jobbers have referred to the stores as the industry's savior. But others say that today, nothing can save them from soaring operating costs. One jobber estimates that the initial investment in a ground-up facility has quadrupled in the past decade. [See related story on page 39.]

But efficient marketers say the smart money is still on convenience stores. Marketers place monthly operating costs for "super" salaried C-stores at between $15,000 and $17,000, while large, self-serve, salaried pumpers and lessee-type operations cost about $12,000 a month to operate.

Now, a lessee dealer needs to pump about 120,000 gal. on a 10¢ gal. margin, while a pumper needs around 240,000 gal. at 5¢ gal. to cover operating costs. But C-stores doing $1,000 a day on inside sales at a 30% markup can cover $9,000 of their monthly expenses, making up the balance by selling 120,000 gal. to 160,000 gal. gasoline on a 5¢ gal. margin.

One large Tennessee-based C-store marketer, for example, says he can run his 135-million-gal./year company on less than 7¢ gal. Retail margins in his markets often hover around 3¢ gal., and he tries to make the equivalent of 4¢ gal. from store sales.

"We can lower gasoline to cost and pump it for the next five years," boasts a southeastern C-store owner.

The proof has been in the pump price signs.

## Majors Now in the Act

Independent C-store marketers are no longer just fighting among themselves for market share. The major oil companies are starting to jump aboard a perilously crowded bandwagon.

"Anytime you get more people in the market, it cuts up the pie," says Daryl McKinney, a northeastern Minnesota gasoline/C-store marketer. And, major oil companies, with choice locations and "deep pockets" can carve out a sizeable chunk.

The Lundberg Survey indicates C-stores have become refiner/marketers' favorite diversification. The majors now have more convenience-store outlets than they do carwashes or truckstops [NPN—March '84, p31]. Citgo leads the majors with 32.2% of its surveyed outlets classified as convenience stores, while Arco is a distant second, with 14.8% of its outlets being C-stores.

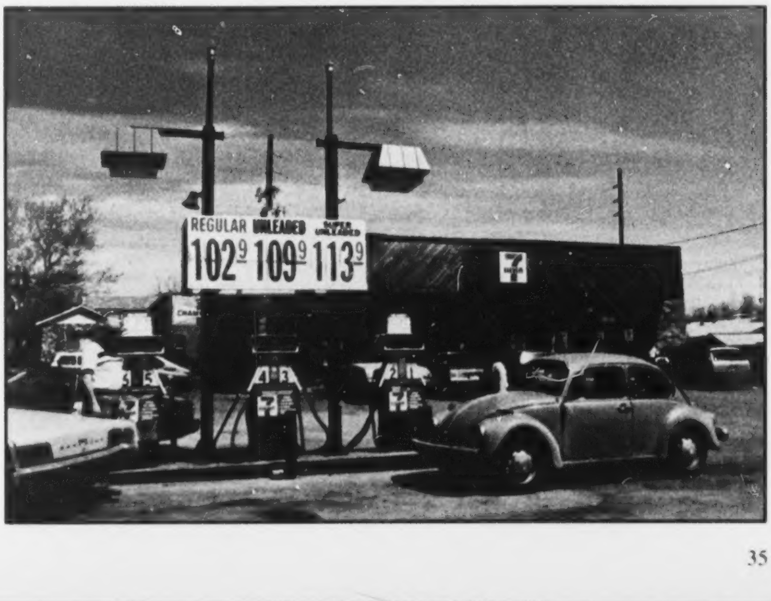
Overall, 3.8% of the major oil company outlets can be called C-stores. On the other hand, 16.9% of all independents' outlets are C-stores. But the majors have only started to tag along with the C-store trend.

Some majors do not even flirt with the concept. Although the trade press has reported Exxon was experimenting with stores, the company denies it is conducting market tests. And, Chevron stresses it is a full-service, dealer-oriented marketer that does not "pretend to be a grocery expert."

Other companies only say their stores are in the experimental stage. Shell has about 200 primarily dealer operations with a limited line of convenience items. The company also is running a joint test with Southland Corp. Union's eastern division has 125 food marts and is converting some of its existing service stations to 1,500-sq.-ft. C-store operations [NPN—Jan. '84, p23].

Still others have shifted from the experimental to the expansion mode, although the number of conversions

**Even before it bought Citgo, giant Southland Corp. sold 1.15-billion gal./year.**



remains conservative. Many of these stores are not full-scale. Sun Refining & Marketing plans to add 20 stores a year to its existing Stop 'N Go subsidiary in Ohio and Philadelphia, while this year expanding its experimental Sun Marts. Amoco plans to add to its 200 to 300 Food Shops, mini-stores not larger than 968 sq. ft. Mobil last year began installing 480-sq.-ft. to 600-sq.-ft. snack shops at service stations.

"Over 70% of the new outlets have service bays, and will continue to," says Mobil's Herman Hokamp, general manager of resale marketing. "We are in the gasoline business and would like gasoline to carry the prime value."

"We have no intention of building 2,000- to 3,000-sq.-ft. convenience stores," says Amoco's Van Sickle. "That would put us in the grocery business."

Texaco two years ago launched its ambitious System 2000 plan, which included high-volume outlets offering food marts and carwashes. The company built more than 200 of them, and about 75% of the units included food marts. Company officials say the concept helped boost Texaco's average throughput from an industry low of 25,000 gal. to 50,000 gal./month.

"The food marts provide an income stream and naturally contribute to gasoline sales," says Jim Conard, manager of retail marketing, Texaco USA.

Aside from Citgo, Arco is the only major to plunge headlong into convenience store marketing. Many marketers consider the snack tie-in and Arco's already aggressive street pricing tough to beat. And, while many C-store operators feel the oil industry has much to learn about grocery merchandising, a spokesman for a large public C-store chain at least considers Arco a formidable competitor.

"We made a deeper commitment to the convenience store business than other companies, and we feel we have more than what you would call a mini-mart," says Arco's Joe Tebo, manager of sales development. "We have a distribution system and proprietary products and a fairly large advertising budget for our stores that other majors don't seem to have."

Although the majors are newcomers, other marketers feel big oil already has had a sizeable impact in some marketplaces. Jobbers say larger players' investment in land, facilities and merchandising expertise is difficult to match.

"If you have got a Shell or a Gulf that can put in a state-of-the-art model across the street from you, it's impossible to compete," says Jim Ezell, a Dallas 9-million-gal.-a-month gasoline/C-store operator. "They have the awesome ability to spend a million dollars for a service station."

Ezell says the majors' entry into his Dallas metro-area market has made independents more image-conscious. And, improved image means higher maintenance costs.

"You used to get by with a grungy, seedy image, but now that the major oil companies are competing, cleanliness counts. People could forgive a lot for price, but nobody has a price advantage anymore," he laments.

## Chain Power

As long as C-store chains cared more for groceries than they did for gallonage, jobbers did not view convenience store operators as a competitive threat. After all, NOJC estimates that in 1982, jobbers supplied 75% of the C-stores with gasoline. One large southeastern C-store chain, Li'l General Stores, even has been seeking joint ventures with jobbers, and the chain's vice president of marketing is a former Detroit jobber.

But Southland's purchase of Citgo shocked marketers and placed the company in a different league than the "harmless grocers." Southland can compete at the refiner, wholesaler and retailer levels, and compete with expertise.

"Southland is unique in that it has 7,000 stores, and nobody even comes close to that number," says Tom Ewens of NCS. The nearest competitor is Circle K with just more than 1,200 stores.

Although most major store chain spokesmen say they are not in the market for a refinery, a few of them say they would not rule out such an acquisition in the future.

"With more oil company mergers and refinery shutdowns, properties are up for sale," explains NOJC's Scanlon. "If a chain wants to be sure of its own source of supply, some refinery might do the job."

The majors also might buy out chains. Sun Refining & Marketing acquired its Stop 'N Go chain in the 1970s, as well as two other chains it sold after closing its Corpus Christi, Texas, refinery.

"We bought a successful chain that knows the business and can control profits

### Oil Companies**

| | Outlets with Stores | Company-Owned Outlets | Average Inside Sales per month | Average Gallonage per month |
|---|---|---|---|---|
| Amoco | 200-300 | 7,800 | N/A | 90,000 gal. (min.) |
| Arco | 800 | 2,968 | N/A | 125,000 (lessee) |
| Ashland/Superamerica | 281 | 450 (e) | Over $15,000 | 80,000 gal. |
| Gulf | 300-350 | 3,900 | N/A | N/A |
| Mobil | 675 (a) | 4,500 | $25,000-$30,000 | N/A |
| Phillips | 2 (b) | 233 | N/A | N/A |
| Shell | 200 (c) | 5,120 | N/A | N/A |
| Sun/Stop 'N Go | 452 (d) | 3,800 | $32,000 | 60,000-80,000 |
| Tenneco | 250 | 238 (f) | N/A | 100,000 |
| Texaco (System 2000) | 200 | 2,600 | $15,000-$30,000 | 150,000 |
| Union (Eastern Region) | 125 | 465 | 10%-20% of total sales | N/A |

**Data supplied by oil company executives.

(a) One-third of all new and rebuilt stations are C-store/gasoline units.

(b) Plus one Super Center

and shrink," explains Jim Graham, Sunoco's director of convenience stores. "People who enter this business that are not well-prepared will go bankrupt very quickly."

A good number of C-store operators have purchased gasoline marketing expertise by buying jobberships. And, store operators are demonstrating greater commitment to the retail gasoline market than ever before.

Store industry analyst John Roscoe says gasoline now represents on average about 37% of total sales dollars of the 10 publicly owned C-store chains he surveys, up from 30.8% in 1980. Now, gasoline margins account for about 15% of the total margin dollars developed by these combined gasoline and store units, Roscoe says. The percentage of C-stores nationwide that pump gasoline has increased from 44.45% in 1980 to 49.11% in 1982.

The chains Roscoe surveys also show some spectacular gallonage gains over the past few years:

—**Shop & Go's** gallonage increased 76%, from 42-million gal. in 1981 to 74-million gal. in 1983.

—**Circle K's** gallonage rose 63% between 1979 and 1983, from 155.9-million gal. to 255.5-million gal.

—**Southland's** gallonage increased 87% between 1978 and 1982, from 616.2-million to 1.15-billion. (Note: that's prior to purchasing the downstream assets of Cities Service.)

—**National Convenience Stores'** gallonage increased 102% between 1979 and 1983, from 114.5-million gal. to 231.6-million gal.

One chain, Munford's Majik Markets, averaged 56,000 gal./month per outlet last year, the highest in Roscoe's survey. Of the chains surveyed, however, the average throughput per store in 1983 was 33,030 gal./month.

"Today, few stores, including those being built by traditional convenience store companies, as well as by oil companies, are planned without the inclusion of 'gas' pumps," reports *C-Store Business* magazine. "Many retailers are depending more and more heavily on gasoline to push store sales."

Gasoline boosts traffic count and sales. NCS says 30% to 40% of its gasoline customers purchase store items—a level consistent with industry averages.

"We are always reviewing properties to see if we can add gasoline economically," says Jerry Wagner, who heads Conna Corp.'s gasoline services. Conna averaged more than 40,000 gal./month in per outlet sales.

Not only are C-store companies adding gasoline pumps, but they also are upgrading the pump facilities they already have. *C-Store Business* says 64% of the C-store companies selling gasoline which had remodeling plans last year planned on building canopies.

Five or six years ago, National Convenience Stores Inc. (NCS) offered the typical two-pump configuration. But the 1,012-store network (695 with gasoline), now features canopies covering four pumps and up to 12 hoses. NCS' ambitious expansion plans include a 450-unit hike over the next four years, and company officials say "it's rare if we take a site that doesn't have gasoline facilities.

"We're in the gasoline business, and we're going to stay in the gasoline business," says NCS' Ewens. "We have learned how to compete with oil folks."

Gasoline can make the difference as to "whether you keep a store open or not," says Jim Robinson, general manager of Shop 'N Go's gasoline division. The chain expects to sell 100-million gal. of gasoline this year. It owes about 48% of its sales to motor fuel, and at some outlets gasoline sales outpace store sales.

## Learning to Run

One large independent gasoline/C-store marketer says these chains are in grade school when it comes to marketing gasoline, but the chains are quickly coming of age. In fact, store operators say gasoline marketers are somewhat elementary in their approach to inside merchandising. Some chuckle that marketers are so price-cut-happy that they slice healthy store margins and hurt their inside profit opportunities. Others observe that gasoline marketers will need to increase store size and offerings to offset slim profit margins from gasoline.

A study in the trade journal, *Convenience Store News* is telling. It says that a cross-section of oil company C-store/gasoline operations showed the average company's fuel sales accounted for 80.2% of total revenues but only 59% of total profits.

Bob Amori, formerly a 30-million-gal./year Detroit jobber, is now vice president of petroleum marketing for Li'l General Stores. Amori says gasoline mar-

### Convenience Store Companies*

| | Stores with Gasoline | Total Stores | Average Inside Sales per month | Average Gallonage per month |
|---|---|---|---|---|
| Circle K Corp. | 798 | 1,221 | $31,140 | 26,580 |
| Conna Corp. | 289 | 435 | $46,620 | 41,610 |
| Lil' Champ Stores | 82 | 170 | $24,840 | 21,660 |
| Li'l General Stores | 208 | 431 | $33,210 | 17,400 |
| Mini Mart | 41 | 110 | $21,150 | 17,400 |
| Munford | 481 | 959 | $24,870 | 56,610 |
| National Convenience Stores | 695 | 1,012 | $36,420 | 29,730 |
| Shop & Go | 286 | 431 | $26,760 | 20,670 |
| Southland Corp. | 2,827 | 7,165 | $45,960 | 35,550 |
| Sunshine Jr. | 322 | 358 | $17,100 | 17,400 |

*C-store information is drawn from Roscoe's Dollars Per Day Survey, which was based on 1982 annual reports.

(c) 20-24 sites in test with Southland Corp.

(d) 220 direct-ops, 230 franchised and two Sun Marts

(e) Includes 200 salary-operated stations under secondary brands: Bi-Lo, Hi-Fy, Save More, Payless, Red Head, Solo.

(f) Excludes 418 secondary branded stations.

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May 1984

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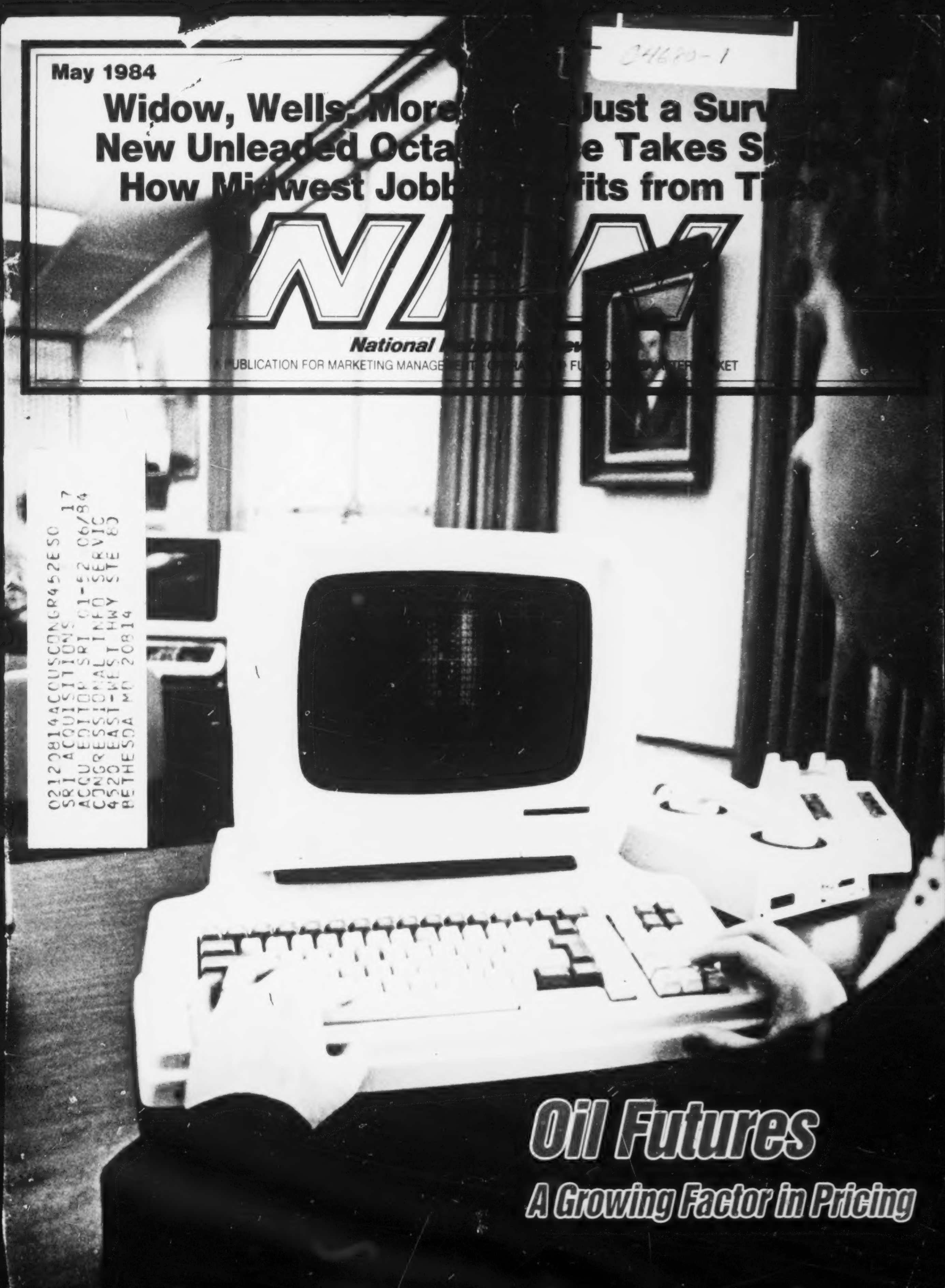

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# Oil Futures

## A Growing Factor in Pricing

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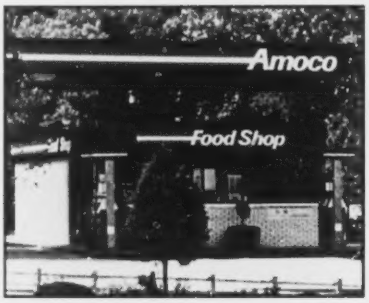
Although many still view such activity with nervous suspicion, oil marketers who aren't already doing so should pay close attention to what's going on in petroleum futures trading—a "paper market" that's begun to have an effect on real prices. **Page 36**

**Cover photograph by Thomas Olson**

Bob Freyberg's 5-million-gal./year Minnesota jobbership avoids the madding C-store/gasoline crowd and banks on his three service station/tire store outlets. **Page 47**



Aside from competition on price, major marketers are sharpening the image of the outlet—traditional station or C-store—to carve a retail edge. **Page 42**

# • TRENDS

## Merger Outcry Aids Chance Of Passing PMPA Revisions

**Big oil once again is under the microscope in the nation's capital, thanks to the flurry of mergers and near mergers in recent months. The timing couldn't be better for independent marketers.**

While most Washington reporters and the large majority of congressmen and senators were alternately investigating and denouncing the big oil buy-outs, an event of considerable significance to marketers went practically unnoticed. With only a small fanfare, Reps. Mike Sinar, D-Okla., and Tom Tauke, R-Iowa, introduced a bill to amend the Petroleum Marketing Practices Act (PMPA).

The amendments aren't new. It's been months since the National Oil Jobbers Council (NOJC) and Service Station Dealers of America (SSDA) agreed on the basic changes to the PMPA and before that, various state jobber groups and brand organizations (such as the Texas Oil Marketers, Illinois Petroleum Marketers and National Association of Texaco Wholesalers) were working on similar ideas.

Prospects for passage in 1984 are slim at best. In fact, Reps. Sinar and Tauke indicated they would be happy if the appropriate House subcommittees get around to holding hearings on their legislation this year. The chance to pass the legislation will come in 1985 or 1986, the sponsors say. But what happens in the next three or four months probably will decide the fate of the PMPA amendments.

That's why lobbyists and congressional staffers working on the bill are pleased that the major oil companies are in the spotlight now. If the votes cannot be mustered to forcibly cure the industry of merger fever, frustrated lawmakers may be more willing to vote for a measure designed to limit the downstream impact of mergers. In short, if Congress can't prevent the creation of super-giant integrated oil companies, it may be able to keep the super-giants from trampling their independent competitors.

The PMPA legislation is the perfect vehicle to take advantage of that frustration. It isn't a major reform that would raise the hackles of the pro-business blocs in Congress. Instead, it is an extension of the rights of independent marketers/franchisees that's designed to fortify small businesses against the immense marketing power of a major refiner and assure that enough independent marketers remain to keep competition alive. The most drastic of the changes would curb the refiners' power to hand out "take-it-or-leave-it" contracts—precisely the kind of market abuse merger opponents cite to justify a ban on buy-outs.

Both NOJC and SSDA have been laying the groundwork for the PMPA legislation in appearances at congressional hearings on various anti-merger bills. NOJC, for example, has endorsed one House bill that would force the majors to submit future mergers to a "public interest test" before they could be approved. Such a test, says NOJC Policy Vice President Michael Scanlon, would have to include an analysis of a merger's "eventual effects of spin-off actions on franchisees and other marketer-customers."

Scanlon's remarks—made to the House Judiciary Committee—serve a double function. They support the tough merger bill the panel has before it, but also emphasize that consumers aren't the only possible "victims" of a merger. NOJC, SSDA and others, no doubt will make the point many more times while Congress is focusing on the role of the majors in the marketplace.

In Washington, there is a name for this strategy. It's called "building a record." Virtually every word uttered at a congressional hearing is recorded for posterity. Hearing transcripts along with statements and other supplementary materials play an important role in the drafting of any bill, as well as in influencing eventual votes on a pending measure.

The "game plan" for the PMPA amendments requires all of the participants to make a case for the bill in every possible forum. Even if there is only a small chance the bill can get through Congress this year, the record developed over the next few months will be extremely important. While the actual legislation will have to be reintroduced when Congress reconvenes next January, the record being built right now will be carried forward. That, the bill's sponsors hope, will speed-up the whole process next year.

The current congressional fascination with big oil may help the PMPA amendments in other ways, as well. "Merger mania" has given new momentum to the sweeping probe of the oil industry launched last year by Rep. John Dingell, D-Mich., chairman of the powerful House Energy and Commerce Committee. It may also trigger renewed interest in divorcement legislation, which might make PMPA amendments more palatable to the majors.

But most important, the majors clearly are on the defensive in Congress, a rare situation that backers of the PMPA bill can use to their advantage. *—Tom Goldsmith*

# • MARKETPLACE AT A GLANCE

### AVERAGE GASOLINE PRICES IN THE U.S. (c per gal.)

| FEBRUARY | Gasoline (All types) | Leaded Regular | Unleaded Regular | Unleaded Premium* |
|---|---|---|---|---|
| U.S. City Avg. | $1.193 | $1.125 | $1.209 | $1.361 |
| Regions: | | | | |
| Northeast | 1.218 | 1.152 | 1.218 | 1.374 |
| North Central | 1.213 | 1.159 | 1.235 | 1.412 |
| South | 1.172 | 1.098 | 1.183 | 1.333 |
| West | 1.175 | 1.096 | 1.196 | 1.358 |

**Effective 1/1/84, prices for leaded premium were discontinued, due to the decline in the number of outlets selling this fuel.*

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

### STOCKS (Add 000 bbl.)

| | 3/30/84 | 4/1/83 |
|---|---|---|
| Gasoline (total) | 245,051 | 233,798 |
| Gasoline (unleaded)* | 101,880 | 95,261 |
| Kerosine ** | 34,183 | 36,368 |
| Distillates | 111,445 | 127,106 |
| Residual | 48,452 | 47,466 |

**Included in gasoline total.*

***Jet kero only.*

*Source: American Petroleum Institute.*

# Oil Futures

## A Growing Factor in Pricing

**Although many still view such activity with nervous suspicion, oil marketers who aren't already doing so should, perhaps, pay close attention to what's going on in petroleum futures trading.**

Increasingly, this "paper" market seems well on its way toward becoming a prime factor in what products actually sell for in the spot market and at loading racks.

Indeed, believe some experts, it is becoming *too* dominant a factor. "You now have a case of the tail wagging the dog," says a Houston-based oil pricing expert.

A futures market is a central marketplace where contracts for future delivery of commodities are traded in open auction. In theory, a buyer or seller of petroleum products such as heating oil and gasoline can protect himself ("hedge") against future price fluctuations by buying and selling such contracts.

But the whole thing is not as simple as it sounds. Experts warn that the inexperienced should become well-educated in futures trading before plunging into the actual buying and selling of contracts.

Heating oil, gasoline and crude oil futures have been trading at a brisk pace in recent months, however, and commodities exchange people predict much greater growth lies ahead.

Most oil company supply and price departments monitor trading in petroleum futures closely now, although some companies say they don't get involved in actual futures trading.

"The oil companies use the futures market to tell them what they can get at their jobber racks," believes a large jobber. "Any little rumor or panic can put the futures market into orbit. The oil companies are quick to jump on this to run up their prices."

Such critics claim speculators and others, reacting to reports which they think may affect future supply and demand conditions, can cause a fast gyration in futures prices that may not be warranted by actual market conditions.

In fact, Massachusetts officials strongly suspect energy futures hijinks by speculator trading helped precipitate 20¢ gal. jumps in East Coast heating oil prices in mid-winter. The commonwealth's report from its seven-week probe stated "price volatility" may have been caused by No. 2 oil contract trading on the New York Mercantile Exchange but stopped short of drawing any firm conclusions.

Those associated with commodity exchanges are quick to deny that speculators influence the petroleum futures market to any large degree. They insist that the majority of such trading is done by oil people who use futures as a "sophisticated tool" to hedge against future market fluctuations.

Regardless of whether outside specu-

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**By J. Richard Shaner**
**Executive Editor**

lators or oil marketers dominate trading, the futures market is already a prime factor in oil's pricing rituals and it could become an even stronger one in the future.

The idea of trading futures contracts for crude oil and refined oil products has been around for at least a decade. Only within the last three years, however, have commodity exchanges succeeded in establishing a relatively high volume of trading activity. The exchanges believe there could be as much as a tenfold increase from today's level of trading before 1990.

The New York Mercantile Exchange (NYMEX) succeeded in establishing a heating oil futures market in 1978. It followed this with gasoline in 1981 and crude oil last year. The Chicago Board of Trade attempted to get heating oil and gasoline futures trading going in its trading "pits" in the early 1980s, but dropped the effort last year to concentrate on crude oil futures. The Chicago Mercantile Exchange is now trying to get gasoline and heating oil futures established. [See related story.]

NYMEX believes it now has well-established trading activity in gasoline, heating oils, and crude oil. It reports that almost 2.6-million contracts were traded on its floor last year, more than double the number two years earlier.

The commodities exchanges and brokerage firms that promote energy futures trading claim such activity brings maturity and sophistication to an industry now subject to volatile pricing moves. They claim that those trading in crude oil and its products can hedge against rapid escalations or downturns in actual market prices with futures contracts.

Advocates of futures trading say the oil industry's traditional way of buying and selling crude oil and products on contracts and in the spot market is too risky now without a backup like futures contracts.

Even some financial analysts say, however, that trading in petroleum futures has yet to attain the "maturity" and "sophistication" which some claim it offers.

One analyst likens the current futures market to a 19-year-old boy—not a juvenile by any means, big now and getting bigger, but still clearly not a man.

Another analyst argues the marketplace is yet in the incubation stage, while others say futures are proven viable.

"I think it might be useful in buying and selling crude oil," says William C. Douce, chairman of Phillips Petroleum, which so far has doubled only in crude contracts. "But when you deal in futures, you can make a bundle, or you can lose your fanny."

## The Outlook

On the East Coast, NYMEX is the arena for the petroleum futures market.

Its affairs are booming, breaking records repeatedly and setting new highs. The experts anticipate the growth will continue unabated. If a tenfold increase in trading is achieved by 1990, as such experts predict, NYMEX would be handling contracts for 200-million b/d of crude oil, gasoline and heating oil. It is currently trading about 25-million b/d.

It would appear, though, that based on the activities of NYMEX alone, the petroleum futures market seems to be well established, highly visible, and presumably here to stay.

This means then that the futures markets in New York and Chicago are going to have to be monitored by all levels of

## Futures Contracts: What They Are, What They Do

**In simple words, a petroleum futures contract is a commitment to buy or sell a specified amount of crude oil, leaded gasoline or No. 2 heating oil on a given date.**

Each contract is worth 1,000 bbl. or 42,000 U.S. gal.

The fascinating part of the futures market is that these contracts are traded back and forth in the thousands, day in and day out.

Few of them ever wind up as wet barrels, however. New York Mercantile Exchange officials say only 1% to 2% of the contracts result in actual deliveries.

Thus, the market is mostly on paper. Speculators buy and sell to turn quick profits on market moves. Industry people, particularly refiners, use the market to hedge prices and deliveries against the real world outside.

Contract terms are precise and detailed so there is no room for misinterpretation or misunderstanding.

The contracts also provide for penalties for failure or nonperformance and are rigidly enforced.

To generate more trading activity, NYMEX recently introduced what it called its "crack spread" concept.

This enables speculators—and refiners—to buy and sell contracts that keep crude oil and product volumes proportionate.

The net effect for refiners is that they can lock in their margins and profits.

**The New York Mercantile Exchange trades 25-million bbl. of crude, No. 2 and gasoline daily.**

N.Y. HEATING OIL
CRUDE OIL
POTS
PALL
LIMIT 200
LIMIT 100
LIMIT 40

## Oil Futures on the New York Mercantile Exchange

**Over the past three years, futures trading has grown steadily at the New York Mercantile Exchange. Here's a bird's eye view of what has happened:**

| | Contracts Traded | | |
|---|---|---|---|
| **Commodity** | **1981** | **1982** | **1983** |
| Heating Oil | 999,506 | 1,745,526 | 1,868,322 |
| Gasoline (a) | 7,300 | 104,082 | 406,483 |
| Crude Oil (b) | — | — | 323,153 |
| Total | 1,002,806 | 1,849,608 | 2,598,318 |

**(a) Began trading 10/5/81; (b) Began trading 3/30/83.**
**Source: New York Mercantile Exchange.**

marketing from now on, like it or not.

And, they're going to have to be reckoned with as a growing influence in the way the industry buys and sells crude oil and products, and how it establishes prices for them, short-term and long-term.

### Changes Already Visible

There are some brokers and traders who say the thriving futures market in New York is already affecting prices at home and abroad—in effect, a new dimension to pricing.

This is pretty well affirmed by one petroleum broker, who explained it this way:

"It's almost impossible to make an early morning deal anymore before the market opens. Yesterday's quotations and the morning newspapers aren't enough to go by.

"And, just about everybody in the spot market takes a look at the futures line before making a commitment.

"It's not that the futures market is setting prices . . . it's kind of a discovery process that puts the whole thing on video screens all over the country. It's a benchmark activity."

Another expert was quoted as saying that any and all fluctuations on the NYMEX, or "the Merc," tables are reflected quickly in the spot market. "Some people may not like it," he said, "but what the Merc does is very important now. You have to be aware of it all the time."

A New York analyst added: "Generally, within an hour after the Merc opens, you have an 18-month panorama of prices for crude oil, gasoline and heating oil.

"Sure, they're all subject to change—perhaps hourly. But at least you have a yardstick—a projection of what prices may look like down the road made by people who are willing to bet money on it. And that's a tough combination to beat."

Dr. Arnold Safer, an economist and president of Energy Futures Group, Bethesda, Md., is even more direct in his appraisal of the NYMEX role in pricing.

In an article he prepared for a financial newspaper recently, he made this statement:

"Futures markets are revolutionizing the pricing system in the oil industry. From a slow beginning in 1978, the New York Mercantile Exchange's New York Harbor No. 2 fuel oil contract is literally setting prices for that petroleum product.

"Jobbers and resellers are increasingly reluctant to take contract oil at prices above those on the Merc, while refiners have been quick to raise prices in response to increased Merc prices.

"In fact, some sellers are offering No. 2 oil under contract prices based on the New York Merc daily average, and today these prices are the market prices for No. 2 oil."

This is the type of influence on actual

## Chicago Mercantile Exchange Tries Gulf Coast Futures

First-day Chicago Merc trading on No. 2 and leaded gasoline was 'encouraging.'

**The Chicago Mercantile Exchange steadfastly believes there is a vast and viable Gulf Coast-based energy futures market which will generate sufficient interest, especially among Mid-Continent oil traders and marketers, to thrive in a market paved with failures.**

The Chicago Merc opened its No. 2 oil and leaded regular gasoline contracts on March 26, complete with a satellite broadcast of opening ceremonies beamed down to the San Antonio, Texas, meeting of the National Petroleum Refiners Assn. Exchange officials described first-day trading volume—802 heating oil and 445 leaded regular contracts—as encouraging enough to stay the course, while noting that sustained volume remains the key to success in launching a new energy futures contract.

"Liquidity is the key factor," Ronald J. Frost, vice president of commodity marketing, told *NPN*. "The industry wants to see what develops out there before they get involved. But frankly, I'm a little bit surprised at the amount of activity I saw out there on the floor when it opened this morning," he said.

The exchange's energy futures foray follows years of experience in agricultural and financial futures but also distressing failures by predecessors.

Although its New York Harbor-based contracts have proved viable, NYMEX was unsuccessful in floating a Gulf Coast petroleum products contract at the same time. The Chicago Board of Trade, the Chicago Merc's in-town rival, began trading a Gulf Coast unleaded contract at the end of 1982, and a Gulf Coast heating oil contract a few months later. Since then CBoT's #2 and unleaded regular contracts have sunk, and in mid-April, it was revamping its crude contract.

The Chicago Merc's Frost, however, blames CBoT's delivery mechanism for the problems, saying that the oil industry was leery of a system that produced a certificate of delivery, rather than actual wet barrels.

His exchange's contracts call for Colonial pipeline or barge delivery of product within five days of the date prescribed by the contract. Frost says the system is more "flexible and simpler" than either of its predecessors.

"Another reason we're confident of the success of these contracts is the price differential you see between the Gulf Coast and New York Harbor," says Frost. "Let's say you're a Midwest marketer, and you have a certain product inventory. You might place a futures position with the New York exchange, and then see price movements there that have little to do with the price of the fuel that comes up to you from the Gulf."

A former CBoT energy futures exec backs Frost's rationale by noting that his former employer also believed the many "smaller guys" with access to Colonial product would be anxious to support a futures exchange constructed for them. But volume and liquidity are the self-fulfilling factors.

Frost acknowledges that with the federal government seriously eyeing a phasedown or outright ban on leaded regular, there is some risk down the road for trading such a contract. But, he says, the Chicago Merc's energy advisory committee—composed of oil industry execs from Charter Oil, Tosco and even the American Independent Refiners Assn.—believed a leaded regular contract based in the Gulf Coast was "the way to go." Besides, Frost says, he doesn't think the government will suddenly abandon a product that is still viable in the marketplace.

Even if its leaded regular (or its home heating oil) contract does not succeed over time, the Chicago Merc is already armed with approval from the Commodity Futures Trading Commission to begin trading in unleaded regular gasoline contracts. And, in recognition of the brisk business on NYMEX's crude futures contract, the Chicago Merc has applied to CFTC for approval to trade that commodity, which it expects before summer. *—Thomas Olson* spot and rack prices which some oil marketers object to.

"The brokers and traders in the exchange pits will take any little rumor and try to panic futures traders," says a jobber familiar with commodities trading. "Just yesterday (late March), a rumor hit the floor that Iraq had bombed some Iran terminals. Another report had heating oil inventories falling. This caused heating oil contracts for April delivery to rise 1.13¢.

"Neither rumor took into account certain other fundamental facts. First, the Iraq-Iran rumor was false. Second, you expect heating oil stocks to start down this time of year, and we had a surplus at this time a year ago.

"The brokers don't care about actual supply-demand conditions. If a rumor can kick the market up a point or two, they tip off the speculators who want in and out fast. If they can run the market up a penny, the in-and-out speculator makes a fast buck and the broker makes about $60 per contract on the turnaround trade."

## Changing Strategies

There is no question that the futures market is precipitating change in pricing tactics and strategies.

Traditionally the industry—and particularly the crude oil segment—has used an informal telephone network, newsletters and pricing services to pass the word along on the ups and downs of crude and products.

What the futures market has done is change the scenario completely.

It makes its prices impersonal, highly visible and readily available on video screens just about anyplace in the world at the press of a computer key.

It's all there in the open for anybody to see or take advantage of. It's simultaneous, too, so that everybody is looking at the same set of numbers no matter whether the locale is New York, Chicago, the West Coast or elsewhere.

NYMEX prices are unique in the way they are established—almost classic Neanderthal in some respects.

Monday through Friday, traders meet in what are known as pits—small, stepdown recesses below the huge price board that reaches to the exchange's ceiling.

At the sound of a bell, seeming mayhem breaks loose. Buyers and sellers shout out bids and counterbids, with much waving of arms and flashing of coded signals with fingers, wrists and forearms.

Despite the madhouse aspects and the noisiness of the scene, deals are struck rather quickly. Even more surprising, despite the confusion, the deals are rapidly recorded on the computers and transferred to the screen high above the pits and to the electronic terminals all over the country.

They are buy-and-sell auctions of contracts in a goldfish bowl. Each contract is worth 1,000 bbl. of crude or product, so the numbers—in volume and dollars—can get rather heady at times.

The activity simmers down once the morning line is established. The market looks ahead for 18 months and prices are posted for each month in that period.

Let there be a spot development in the world that could affect crude oil prices, however, and the action is reinstated and intensified in a matter of minutes.

Following recent reports that the Iran-Iraq war was heating up and distillate inventories were dropping, both heating oil futures and actual market prices rose sharply. Whether or not one triggered the other is debatable.

Nevertheless, prices rose so fast in some eastern states that federal and state investigations like Massachusetts', were initiated to see who or what was to blame. Once supplies firmed up, however, the futures market reacted as might be expected—prices dropped to what might be considered normal levels for the times.

## Who's Buying and Selling?

It is hard to get a clear picture of who is doing all the trading in the futures market at the present time.

Some industry people think there are more speculators than oil interests—nonindustry people who play the markets for the profits that can be made in successful gambles, just as their counterparts do in stocks and bonds.

But the NYMEX people say this isn't true at all. They say that only about 25% of the current activity is by outside speculators—the doctors, the lawyers and the other professionals who are supposed to have lots of ready cash for such purposes.

Three-fourths of the trading volume, the NYMEX people say, comes from what they describe as "commercial interests," i.e., traders, refiners, small independent producers and some substantial-sized marketers.

NYMEX chairman Michel Marks says 70% of the 50 biggest oil companies in the land are involved in futures trading. The same set of numbers is used in NYMEX publications and by others in the business.

How they arrived at them is somewhat of a mystery.

*NPN Factbook* data shows that the 25 top oil companies are relatively easy to count. But after 25 or so, the dropoff is precipitous. Identifying another 25 could only be a guessing game, at best.

## Oil Company Players

Oil company participation also is hard to figure.

Chairman Marks, for example, says five out of seven top majors are in the market. Yet Exxon, Mobil, Texaco and Chevron have said they have not yet gotten involved.

Only a few oil companies have acknowledged that they are in the futures market. Sun is one. Others include Gulf, Ashland, Standard of Ohio, Tosco and Tenneco. No doubt there are many, but their names have not surfaced in marketplace reports.

Sun has had no qualms about its role in petroleum futures. A spokesman there has been quoted as saying that Sun has used crude futures to guarantee supply and hedge prices, and has used gasoline and heating oil futures to hedge the prices of its refined products.

"We are satisfied with the way it works," he said, "and we have every intention of sticking with it."

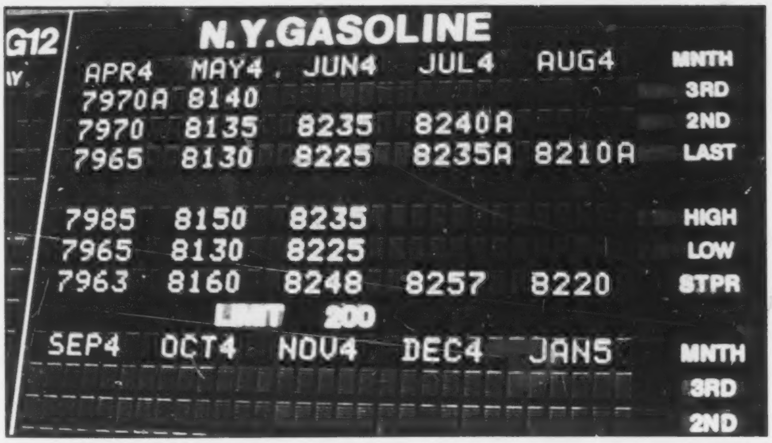
## Watch Your Step

The futures market is not for everybody, however, even though some of the hype and hoopla from NYMEX and the brokerage houses would make it seem that way.

There is a dividing line.

NYMEX says a member must have minimum capitalization of $500,000 and a good financial rating.

But NYMEX also says that smaller companies or individuals can speculate by meeting the margin requirements ($1,000



G12 NY N.Y.GASOLINE

| APR4 | MAY4 | JUN4 | JUL4 | AUG4 | MNTH |
|---|---|---|---|---|---|
| 7970A | 8140 | | | | 3RD |
| 7970 | 8135 | 8235 | 8240A | | 2ND |
| 7965 | 8130 | 8225 | 8235A | 8210A | LAST |
| 7985 | 8150 | 8235 | | | HIGH |
| 7965 | 8130 | 8225 | | | LOW |
| 7963 | 8160 | 8248 | 8257 | 8220 | STPR |

LIMIT 200

| SEP4 | OCT4 | NOV4 | DEC4 | JAN5 | MNTH |
|---|---|---|---|---|---|
| | | | | | 3RD |
| | | | | | 2ND |

Current futures prices are posted on the big board and on computer screens nationwide.

to start) and playing it that way.

A brokerage firm representative was much tougher, however.

"Sure," he said, "just about anyone can get in if he wants to take the plunge. That's what many speculators do.

"But where small oil companies are concerned, there are limitations—at least, from my point of view. I personally think that active participation in pit trading belongs more to the super-jobber than the little guy—people with 100-million gal. a year and more.

"These people not only have the market expertise but also have the leeway and the equipment to monitor the market while it's open. Remember, futures thrive on price volatility, and if you get too far away from the scene, you can get hurt."

Indeed you can, say some marketers with experience in futures, but one adds that if you know what you are doing, trading in futures can be profitable.

"I'm dealing now with a customer who wants me to sell him diesel fuel in June but he wants a commitment on price now. I can take this business and protect myself with futures contracts.

"You've got to know what you are doing, and stay right on top of things, but you can make money in futures. This includes gasoline, although it isn't as active in futures trading as heating oil.

"Let's say gasoline futures two months from now are being quoted at 83¢. If you've done your homework on inventories and market trends, maybe you are pretty sure actual prices will hit 88¢ by then. You buy 20 contracts today at 83¢ and if you have guessed right, you'll make a 5¢ gal. profit. Then, you can take that and go out on the street and beat the tar out of somebody."

## Size No Guarantee

Neither size nor all the market research in the world is any guarantee, however, of success in futures trading.

There are any number of horror stories about futures market trading, of what can happen to companies and speculators when things go bad.

One such case is that of an upstate New York marketer, a pretty knowledgeable 100-million-gal.-a-year distributor.

This firm got into the futures market and added a specialist to the staff to handle the trading activities. How it got itself in the mess it did has never been discussed publicly. But the company almost went down the tube as a result.

It took a bath for several million dollars, was forced into a major retrenchment of manpower and equipment, and ultimately into Chapter 11 bankruptcy proceedings to save the day. It's still struggling to get itself turned around, informed sources say.

Another company that got squeezed was much, much bigger—Apex oil Co. of St. Louis. Apex, a broker and terminal operator, got caught in a demand for wet barrel deliveries in New York harbor to fulfill commitments.

**NYMEX Chairman Michel Marks says many majors are involved in futures trading.**

Industry sources said it cost Apex in excess of $10-million to make good. Afterwards, Apex filed suit in federal court alleging that it had been victimized by several brokerage firms and oil companies. The case is still pending.

There are success stories too. There are any number of companies which have hedged and traded and made out very well.

One 75-million-gal./year fuel oil and gasoline marketer in Chicago, for instance, says he weathered the notorious and unexpectedly balmy '82-'83 heating season quite well—thanks to his hedging on the futures market—while his competitors lost their shirts.

But like the winners of Saturday night poker games, few of them want to talk about it or their "winnings."

## Trading History

Futures markets are not unique in the business world. Commodity exchanges have been trading in futures for a century or more—in grains, metals, vegetables and livestock, to name a few.

Petroleum futures is a new development, however.

NYMEX made an attempt to establish a petroleum futures market in the early 1970s. But it didn't take.

"Neither the marketplace nor the industry were ready for it," said chairman Marks.

"We decided to give it another whirl in 1978, not long after I was elected to my first term as chairman.

"The heating oil futures were inaugurated in 1978, the gasoline futures in 1981 and the crude oil futures on March 30, 1983.

"Crude oil futures were the shot in the arm the exchange really needed."

Marks noted that the market thrives on price volatility. "That's the key," he said. "Take away that element and there could be a question as to the need for a futures market.

"For example, if price controls should ever come back, they could shoot the bottom out of the market.

"There'd be no risk factor, no volatility, no money to be made, no hedges to guard against future developments.

"Drastic changes in politics also could affect the operations of a future marketplace." But Marks see none of this happening.

"Some of the fluctuations of the market may dominate for a while," he said. "But ultimately, supply and demand will dictate what's going to happen.

"The ultimate test of the market is the convergence of the cash prices and the futures price," he said.

Marks is a young man, only 34, as a matter of fact. He's now in his fourth two-year term as chairman and most of the futures market activities have taken place during his stewardship.

Isn't it unusual for such a young man to be chairman of such an old institution?

Marks laughed. "The man I succeeded was in his seventies. But when I came in, the exchange was looking for some action. And that's what we tried to build in.

"When I first started, most of the trading here was in potatoes and platinum. Now there's very little potatoes and not much platinum. But an awful lot of oil."

NYMEX figures show that the petroleum complex dominated all trading in 1983 for the third consecutive year. Of the 3,926,589 contracts of all sorts that were traded on the exchange last year, almost two-thirds of them were petroleum.

"When I became chairman of the Merc," Marks commented with a grin, "we had about 100 members, little credibility, and seats were worth about $5,000. Today we have 800 members and only recently a seat commanded a price of $85,000.

"That tells an awful lot of what has happened at the Merc in recent years and mostly as a result of petroleum futures."

Marks has a brokerage firm of his own. He has been spending half to two-thirds of his time in handling exchange activities, however. He still has about a year to go to complete his fourth term. He's not sure whether he wants another. "On the other hand," he said impishly, "maybe they won't want me either. Then I can go back to full-time trading and have some fun out there myself again."

# TBA Briefs

## Lower '83 Fuel Prices Helped Dampen Cost of Operating Automobiles

**The average per-mile cost of operating a typical new compact car in 20 of the nation's largest cities last year fell 1.4% to 46.53¢ per mile, according to an annual study by Hertz Corp.**

The decline in the big-city average is lower than the 3.1% or 1.39¢ mile drop in the overall U.S. 1983 average reported in January.

Hertz says the decline was due in part to lower car loan interest rates and less expensive gasoline, which offset a 3.3% increase in vehicle purchase prices and higher sales taxes, license fees and insurance premiums.

Purchase prices for new compacts ranged from a low of $8,225 in Detroit to $8,561 in New York City.

Los Angeles continued to top the list of per-mile cost with an average of 56.86¢. Atlanta is least expensive with average per-mile costs of 41.59¢.

Other figures released by Hertz show that automobile size has a direct bearing on per-mile cost. Subcompacts bought new and driven 10,000 miles per year cost 37.23¢ per mile to operate. Mid-sized cars cost an average of 48.87¢ per mile, intermediates cost 52.28¢ and standard-sized vehicles 59.58¢ per mile.

| | | 1983 | 1982 | |
|---|---|---|---|---|
| 1 | Los Angeles | 56.86c | 57.08c | 1 |
| 2 | San Francisco | 54.61 | 54.33 | 3 |
| 3 | New York City | 54.50 | 56.05 | 2 |
| 4 | Miami | 50.03 | 50.04 | 4 |
| 5 | Chicago | 49.46 | 49.81 | 5 |
| 6 | Denver | 47.74 | 46.98 | 8 |
| 7 | St. Louis | 47.53 | 47.61 | 7 |
| 8 | Seattle | 47.06 | 47.91 | 6 |
| 9 | San Diego | 45.34 | 46.39 | 9 |
| 10 | Boston | 45.34 | 46.33 | 10 |
| 11 | Minneapolis | 44.99 | 45.58 | 13 |
| 12 | Milwaukee | 44.23 | 45.60 | 12 |
| 13 | Houston | 44.09 | 45.62 | 11 |
| 14 | Pittsburgh | 43.56 | 44.75 | 15 |
| 15 | Detroit | 43.44 | 41.68 | 20 |
| 16 | Cleveland | 43.21 | 45.36 | 14 |
| 17 | Cincinnati | 42.68 | 43.63 | 17 |
| 18 | Dallas | 42.27 | 43.11 | 18 |
| 19 | Dist. of Col. | 42.11 | 43.73 | 16 |
| 20 | Atlanta | 41.59 | 42.15 | 19 |
| **20-CITY AVERAGE** | | 46.53 | 47.21 | |
| **NATIONAL AVERAGE** | | 43.28 | 44.67 | |

**Source: Hertz Corp.**

## General Tire Rolls Out New Name and New Card

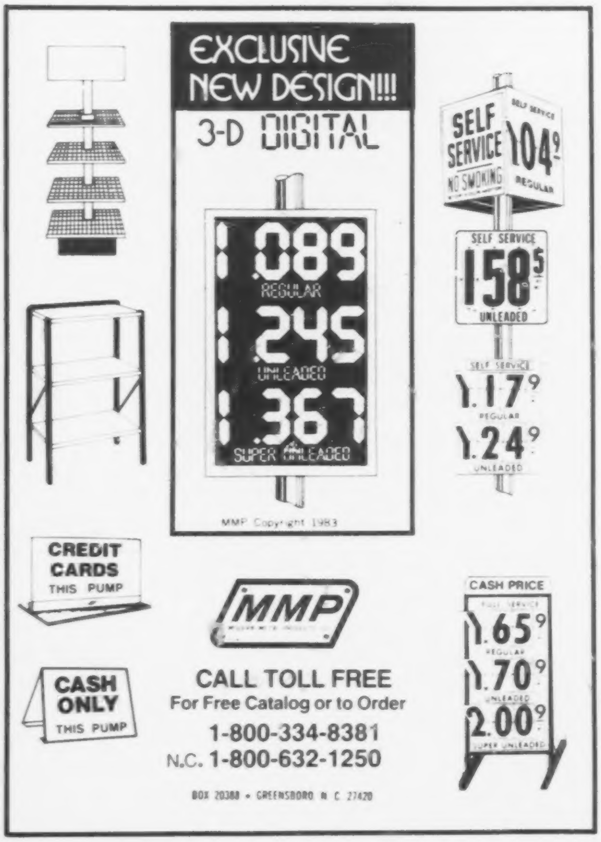
**Fresh on the heels of changing its name from General Tire and Rubber Co., GenCorp early last month awaited results of its new GenCard credit card program.**

The card's introduction, according to Troy Kegans, vice president of replacement sales for GenCorp's General subsidiary, came just in time for "the high-volume spring sales season."

A company spokesman declined to reveal the number of GenCorp cardholders, but says that the company's present credit card would be phased out over the next year.

GenCard was test marketed in Midwest and Southwest outlets for three months before it was implemented at all General Tire dealers.

The company says it will administer the entire credit card program, including credit approval, billing, collection and assumption of all bad debt expense. Participating dealers will be charged fees ranging from 3.5% to 5%, depending on purchase amounts. **NPN**



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## Indies in Squeeze as Majors' Profits Soar
## Why Two Jobbers Use Energy Futures
## Borenkind: Merged Suppliers' Obligations

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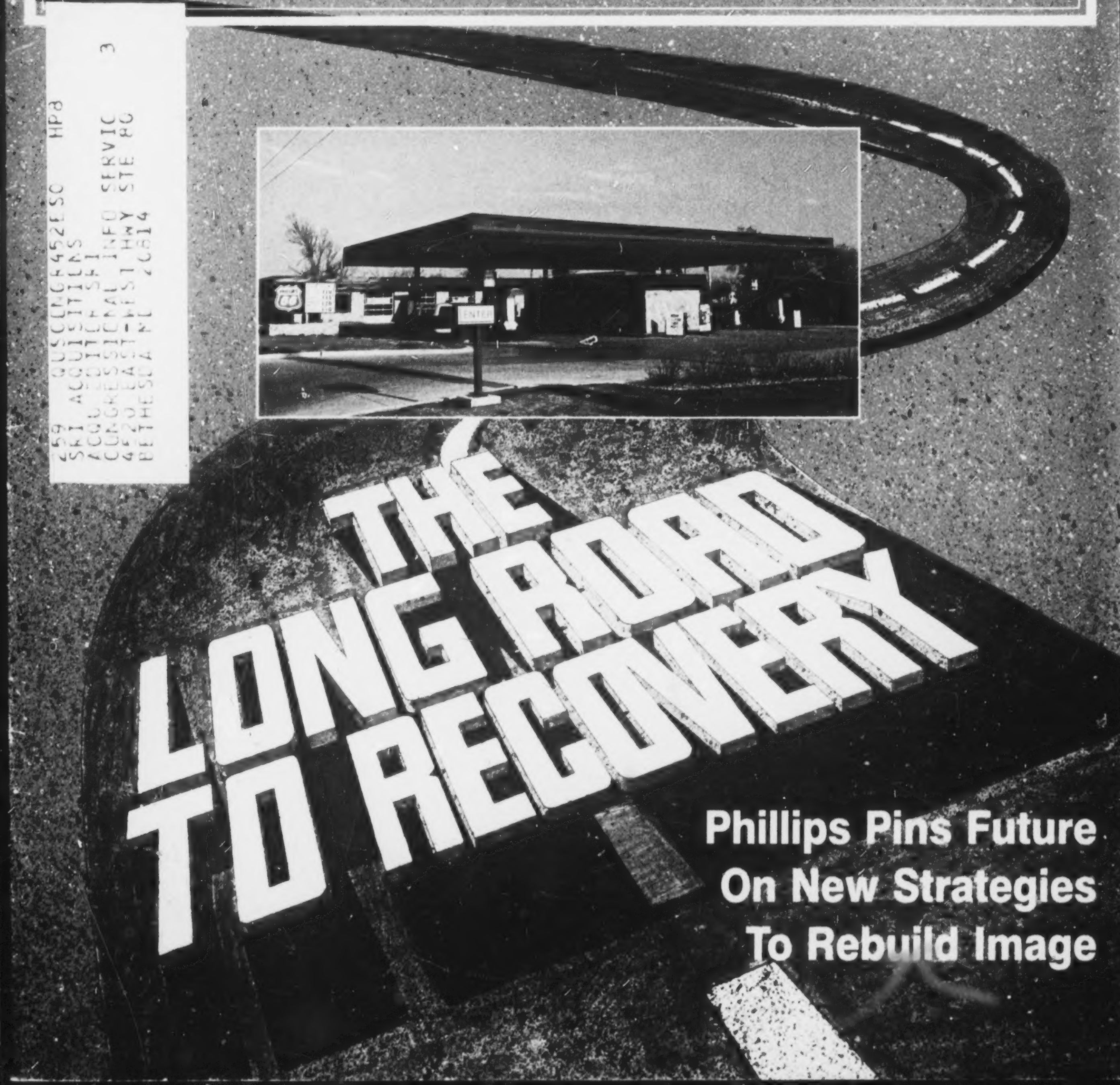

# THE LONG ROAD TO RECOVERY

## Phillips Pins Future On New Strategies To Rebuild Image

# NATIONAL PETROLEUM NEWS

JUNE 1984 VOL. 76 NO. 6

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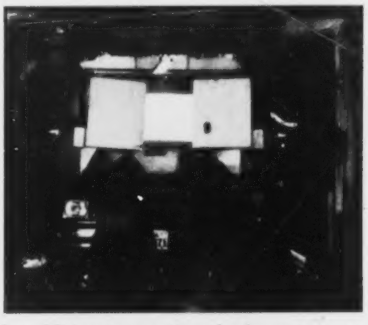
For the first time in 20 years, Phillips Petroleum depicted one of its gasoline stations on the cover of its annual report. Meaning: In a substantial effort to improve a sagging retail image, 'the jobber company' has launched several wholesale and retail programs that are bound to raise a few eyebrows. **Page 42**

**Cover art by Marcus Design, Chicago**

Two case studies show the variety of ways jobbers tap energy futures in their operations today. One East Coast jobber has built a stable record on hedging fuel oil futures, while a West Coaster has begun adapting eastern futures for his own western operation. **Page 56**



In addition to meeting the lowest pump price in big towns, many majors' units today are rediscovering car washes as a means of luring customers . . . and it seems to be working. **Page 53**

# • TRENDS

## 'Competition is Good . . . At Any Cost,' Fed Saying

**Nobody has to tell marketers that competition has intensified since 1981. Nor is it difficult to determine why that's so. Supplies are more than enough to meet demand, and federal price and allocation controls are gone.**

But the burning question for the past couple of years has been whether all this competition is "fair." More to the point: Is it reasonable to expect the small business segment of the market to compete with some of the largest corporations in the world?

The answer from the federal government (or at least the executive branch) is a resounding "yes." Recent developments in Washington underscore that impression.

The Federal Trade Commission, for example, has given tentative approval to two of the largest corporate mergers in the nation's history. (Early last month, a final decision on the Texaco/Getty Oil merger was imminent, and the FTC gave preliminary approval to the Socal/Gulf deal at the end of April. [See story on page 16.] In both cases, the commission won significant concessions from the merging companies, including divestitures, on an unprecedented scale. But in both instances, the commission paid little attention to the impact of the mergers (or the divestitures) on small business marketers.

But the FTC is not the only federal agency taking a "free-and-fierce-enterprise" position these days.

A draft report released by the Energy Department (DOE) in April makes it clear that the current definition of competition makes few, if any distinctions between large companies or small ones. If most of the casualties of competition are smaller companies, it's because the market works that way, the agency says. By definition, competition is good, even if it takes a multi-billion-dollar company to compete effectively.

A quote from the DOE report illustrates the point: "The ability to remain cost-competitive (has) required changes in jobber operations. Jobbers (have) remained competitive by extensive efforts at cost reduction, including increased volume through internal growth or through mergers and consolidations. Further jobber effectiveness depends upon the ability to continue cost reduction efforts to maintain cost advantages over their suppliers."

In other words, the rules of the marketplace (low-margin, high-volume) have been laid down by the major integrated companies. The jobbers who survive will be those who can outplay the majors on their home field.

The DOE report, titled "Deregulated Gasoline Marketing: Consequences for Competition, Competitors and Consumers," is based partly on case studies and market data developed during the controversial "Title III Study," which attempted to discover whether the 15 largest oil companies were subsidizing their marketing operations (and concluded they were not). The rest of the work is an analysis of market data from the post-decontrol period.

The report concludes from the case studies that comparison of street prices on a given day is not sufficient to build a case for predatory pricing. Complex multiproduct pricing, as well as competitive and volume rebates make this misleading, DOE says.

In addition, each company has its own marketing strategies, based on different views of what the future holds, the report notes. "This is precisely what we should expect in a competitive market, with winners being rewarded and losers being punished if the competitive process is to be effective."

Information from the marketplace since decontrol indicates that by DOE's definition, competition is working well. Absent their "government granted advantages," jobbers began losing market share near the end of 1982 and have continued to lose ground since. From 1973 to 1982, jobber market share rose from 36% to 52%. Since then, the share has been dropping slowly (the report doesn't say by how much). Direct-supplied dealers lost market share between 1973 and 1982 but now are gaining again.

The trend that's emerging is a change in the way DOE, the FTC and certainly the White House view competition. The view that's prevailing is that inter-brand competition is what's important. So long as the major refiner-suppliers compete with one another and with larger independents, the market is working fine. Little or no attention will be paid to the fate of competition among the various classes of distribution (jobbers, lessee dealers, open dealers, etc.). Refiner's are free to decide which markets they will serve, how they will serve them and at what price. Those who want their suppliers to behave differently won't get much help from the executive branch.

*—Thomas Goldsmith*

# • MARKETPLACE AT A GLANCE

**AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)**

| MARCH | Gasoline (All types) | Leaded Regular | Unleaded Regular | Unleaded Premium |
|---|---|---|---|---|
| **U.S. City Avg.** | $1.194 | $1.125 | $1.210 | $1.362 |
| **Regions:** | | | | |
| **Northeast** | 1.214 | 1.146 | 1.215 | 1.369 |
| **North Central** | 1.213 | 1.159 | 1.236 | 1.415 |
| **South** | 1.175 | 1.100 | 1.188 | 1.337 |
| **West** | 1.176 | 1.098 | 1.198 | 1.361 |

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

**STOCKS (Add 000 bbl.)**

| | 4/27/84 | 4/29/83 |
|---|---|---|
| **Gasoline (total)** | 250,486 | 224,804 |
| **Gasoline (unleaded)*** | 107,153 | 92,169 |
| **Jet Kerosine** | 34,186 | 35,956 |
| **Distillates** | 101,420 | 107,797 |
| **Residual** | 45,438 | 43,720 |

**Included in gasoline total.*

*Source: American Petroleum Institute.*

# Majors' 1st-Qtr. Earnings Supported by Downstream

**Boosted by more profitable returns in refining and marketing, oil company earnings in first-quarter 1984 were generally brighter than they have been in a long time.**

For these integrated oil companies, several positive factors came into play. Several of the top major oil company performers benefited from weather colder than the near-balmy days of the first period of 1983, meaning home heating oil sales were up dramatically. In addition, several companies—especially Exxon, Socal and Phillips—witnessed far greater natural gas volumes in this first quarter.

Overall, domestic demand for petroleum products was 4.9% higher for the 1984 period than that for 1983, according to the American Petroleum Institute.

For some, the returns sounded like the economic recovery stories on earnings coming out of the auto industry.

Standard of Indiana, for example, said its first quarter net of $594-million was the second best quarter in history, and its best first-quarter return ever. Ashland said its January-through-March profits were the best since 1981.

Exxon had a $1.5-billion first quarter, which—if maintained for the rest of the year—would give it 1984 profits in excess of $6-billion. It is doubtful, however, that Exxon or any of the others would come close to repeating the windfall decrease in crude costs witnessed in year-ago comparisons during the first quarter.

Texaco squeaked by with an increase of less than 1%. That negligible increase, however, takes into account Texaco's amortized $10.1-billion purchase price for Getty Oil last quarter and only the March portion of Getty's own $45-million earnings for that month.

Gulf, whose acquisition by Socal was given the federal go-ahead in late April, had a 21% jump in the first quarter. [See related story on page 16.]

Marathon Petroleum, which was acquired by U.S. Steel Corp. two years ago, also did well in the first quarter of 1984. U.S. Steel said the Marathon division had an after-tax operating income of $197-million compared with an operating income of $56-million in the comparable period last year.

## First Quarter Earnings Soar

*(Add $000)*

| Company | 1st Qtr. 1984 | 1st Qtr. 1983 | % Change |
|---|---|---|---|
| **Exxon** | $1,475.0 | $1,060.0 | 39.2% |
| **Mobil** | 380.0 | 250.0 | 52.0 |
| **Texaco** | 321.0 | 319.0 | 0.6 |
| **Stand. (Ind.)** | 594.0 | 399.0 | 48.9 |
| **Stand. (Calif.)** | 378.0 | 310.0 | 21.9 |
| **Atlantic Rich.** | 395.1 | 330.4 | 19.6 |
| **Shell** | 326.0 | 246.0 | 32.5 |
| **Gulf** | 220.0 | 182.0 | 20.9 |
| **Tenneco** | 155.0 | 111.0 | 39.6 |
| **Stand. (Ohio)** | 381.0 | 277.0 | 38.0 |
| **Phillips** | 193.0 | 129.0 | 49.6 |
| **Sun** | 143.0 | 90.0 | 58.9 |
| **Getty** | (a) | (a) | (a) |
| **Union** | 180.1 | 128.3 | 40.0 |
| **Amer. Hess** | 88.4 | 5.0 | 1,668 |
| **Diamond Sham.** | 59.5 | 4.6 | 1,193 |
| **Ashland (b)** | 5.0 | (14.5) | — |
| **Kerr-McGee** | 40.3 | 23.7 | 70.0 |
| **Pennzoil** | 69.2 | 41.3 | 67.6 |
| **Murphy** | 26.3 | 27.9 | (5.7) |
| **Amer. Petrofina** | — | — | — |
| **Crown Central** | (4.1) | (10.5) | — |

(a) Being absorbed by Texaco and included in Texaco's 1st quarter report. (b) 2nd quarter fiscal ends 9/30: First half earnings were $32.2-million, up 119% over 1982's $14.7-million.

# Indie Marketers Trimming Down: Sigma Study

**Indicating that previously high-flying indies have trimmed their defiant sails since decontrol, a recent study shows that independent gasoline marketers have cut down significantly on the volumes of gasoline they have been buying from large independent refineries.**

According to the latest statistical profile the Society of Independent Gasoline Marketers of America has made of its membership, the independents rely on major oil companies and large refineries for more than half of their supplies but pared their large independent refinery purchases by roughly 35% in 1983.

The profile noted that SIGMA members bought 4-billion gal. from the large independent refineries in 1982 and only 2.8-billion gal. in 1983. Jobber purchases continued to decline too, dropping to 2.2% of the total. Spot market and rack purchases moved up from 0.83-billion gal. in 1982 to 1.4-billion gal. in 1983. The majors got 40.6% of the supply business.

Here's the way the profile reported 1983's sources of supply:

| Source | Percentage |
|---|---|
| Own refinery | 16.1% |
| Jobber | 2.2 |
| Small refinery | 8.7 |
| Large indep. refinery | 16.5 |
| Major oil company | 40.6 |
| Spot market rack | 8.5 |
| Spot market bulk | 6.0 |
| Other | 1.4 |

The switch in gasoline purchases is another indirect reflection of the problems that are plaguing refiners large and small. [See related story on page 33.]

SIGMA's latest profile was published on the eve of its spring meeting in Washington last month. Its first such profile was published in 1983 [NPN—May '83, p34].

Here are some additional highlights from the new study:

- SIGMA members sold 16-billion gal. of motor fuel in 1983, nearly 14% of the national total.
- They operate in all 50 states and the District of Columbia, and they directly own or control some 12,600 retail outlets, an increase of 2,000 over the preceding year. They also supply 5,400 additional outlets, raising their industry total to 19,000.
- Although individual company totals may vary from as little as 1-million gal. a year to as much as 500-million gal. a year, the "average" SIGMA member supplied 73-million gal. of motor fuel to 82 retail outlets in 1983.
- In keeping with the national "tightening-up" trend, SIGMA members continued to cut down on manpower needs. They averaged 4.7 employees per outlet in 1983 compared with 5.4 in 1982 and 6.3

in 1981.

C-store growth is also sweeping the independent vendors as it is the rest of the industry. The number of outlets being operated as convenience stores came close to doubling in 1983 in less than a year.

The shift to self service continued in 1983, mostly at the expense of full-service and mini-service outlets. But the growth wasn't too significant, less than 4%. Nevertheless, close to seven out of 10 Sigma outlets were fully self-service at year-end.

Sigma members estimated the value of their station sales at $18.85-billion in 1983, with $16.35-billion coming from motor fuel.

| Type of station | % of total outlets 1983 | 1982 |
|---|---|---|
| Motor fuel – incidentals | 39.4% | 48.5% |
| Motor fuel – C-stores | 47.1 | 25.2 |
| Motor fuel – car wash | .7 | .9 |
| Motor fuel – lube bays | 8.6 | 15.6 |
| Motor fuel – other(*) | 2.3 | 8.3 |
| Truck stops | 1.9 | 1.5 |

(*) Autoparts, tires, donuts, etc.

## Shell, Mobil Jobbers Could Get $77-Million In Overcharge Refunds

**More jobbers continue to become eligible for a windfall of overcharge settlement money coming out of escrow funds held by the federal government, and the Energy Department seems to headed toward opening up proceedings so that the typically incomprehensible refund procedures can be grasped by those with a possible stake in the matters.**

In late April, Shell and Mobil jobbers got hopeful news from DOE. The agency broke its $50-million settlement for petroleum product overcharges allegedly from Shell when officials reconsidered the amount to be too low. That means that within the year, even more money likely will be put into an escrow fund for Shell marketers later to share in.

(Although Shell could elect to back out of its settlement procedure with the government altogether and take the matter to court, attorneys familiar with the case say that is doubtful because the supplier would risk getting slapped with an order to give the government significantly more than the $50-million amount.)

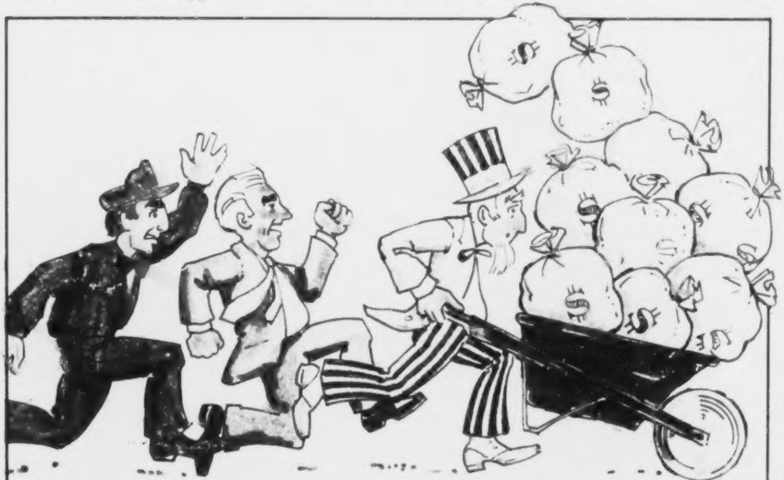
Mobil jobbers received word on Good Friday that their supplier's $27-million settlement was ordered opened for distribution to jobbers and other parties by DOE's Economic Regulatory Administration. (As $26-million of that was comprised of product, not crude, overcharge settlement money, only Mobil-branded jobbers are entitled to a share.)

ERA earlier had assessed the maximum amount Mobil could have overcharged customers during the controls period to be $17.2-million from Jan. 1, 1973 to Jan. 28, 1981. (With interest, the amount rises to $40.7-million, the agency states. But ERA later proposed a $27-million settlement.)

Meanwhile, DOE has just begun a spate of public hearings on such proposed settlements in answer to charges that heretofore, it had not adequately explained settlements to the public, said Energy Secretary Donald Hodel.

"In acting on a proposed settlement, the department will respond to significant comments and will publish in the Federal Register the rationale for any final decision," said Hodel. "I am confident that wider, more informed public participation in the settlement process will assure public confidence in the settlements."

In the words of one attorney representing jobbers in overcharge cases: "DOE wants to show Congress it is getting tough with these cases." **NPN**



## St. Louis Independent Files for Chapter 11 After Change in Owners

**Just a few short months after changing hands earlier this year, Star Service & Petroleum, a 15-state marketer based in St. Louis, has filed for Chapter 11 bankruptcy protection, joining a number of other indies that have taken a similar route since the decontrol of oil.**

The action taken by the roughly 50-year-old company had caught some observers by surprise, however. Once known as Missouri's largest privately held firm—$180-million in gross sales in 1982—Star faced debts as high as $10-million when it filed its bankruptcy petition, according to court records and local sources.

Marketers say the company is known for its slick carwash/gasoline outlets marketing under "Pep Gas & Wash" and selling gasoline branded "Star." The company owned 156 units in 1983, a drop from 183 stations in 1982. Five years ago, the company operated 211 outlets. The firm has withdrawn from marketing in four states over the past year or so, according to *NPN Factbook* figures.

Competitors had described the company as well-established, competitive and "one of the most financially sound firms in the area."

But others familiar with the new owner say they were not surprised at Star's difficulties. Cameron Henderson, head of the Texas jobbership that bought Star, is described as a "likeable young man," but a high-roller who is known to be slow in paying creditors and suppliers.

Neither Henderson nor attorneys handling the bankruptcy proceedings would comment on the case. But newspaper reports cite troubles which precede Henderson's involvement with the company.

The *St. Louis Post-Dispatch* cites a string of price-fixing suits against the company over the last three-and-a-half years. In 1982, Star paid $100,000 to settle a price-fixing suit brought by the Missouri attorney general and paid a $45,000 settlement in a Florida price-fixing suit the same year. In 1981, the company plead guilty to raising and fixing prices in St. Louis and was fined $25,000.

The company's top executives say it was the sale of Star that pushed it into financial trouble. When owner and co-founder George Gudder died in 1981, court documents say, all but six of the company's 1,339 shares went into probate. These six shares of stock were owned by John Henderson (no relation to the company's new owner, Cameron Henderson), Gudder's son-in-law and Star's president and CEO.

In mid-February, the company was sold by the estate's executor to the Mexia, Texas-based marketer for $1.5-million in cash and $820,000 in promissory notes due in July, court records state. But just two weeks after the agreement, Star's checks began to bounce, other records show.

Last month, John Henderson, Gudder's heirs and two creditors filed in court to bar Cameron Henderson, his company and his family from controlling Star's funds because of alleged misappropriation and to request that another trustee be appointed by the court.

Texas marketers say Cameron Henderson is in his mid-twenties and runs a small, four-to-seven-outlet jobbership. A number of them also marveled at how such a small operator mustered the finances to buy Star, adding that they personally conduct business with him only on a cash-up-front basis. Henderson, estimated to have been in business five or six years, has had a reputation for low wholesale prices and slow payment to suppliers.

One distributor says Henderson Oil owes his company $30,000. He adds he has presented $7,000 worth in bounced checks to the local district attorney.

"We got cold feet doing business with him," says a broker. "Like anyone else, we want to get paid."

One company, Charter International Oil—not the Jacksonville giant—filed suit against Cameron Henderson in Limestone County, Texas, district court in January for a $8,701.49 debt, but the suit was settled the next month. A suit filed April 25 by Macona Boot Co., Inc., to collect $4,000 in the same court was pending last May.

## Powerine Carries on Despite Bank-Owner War

Behind the Chapter 11 filing of Powerine Oil, Santa Fe Springs, Calif., is what an insider describes as "World War III" between the Rothschilds and the banks.

The once proud 44,000-b/d refinery, upgraded to the tune of $200-million or more a few years ago, has been downgraded to the role of a topping plant with a skeleton crew of 60 people.

The banks moved in when markets soured and Powerine couldn't meet the payments on the high-interest loans that financed the refinery improvements. Rothschild feelings were none too good that the banks wouldn't ease up a little and try to let the refinery make a go of it [NPN—May '84, p21].

Recently, the banks found out the Rothschilds still own the land on which the refinery stands, and, of course, the lenders wanted some of that. But the Rothschilds hadn't put their property at risk when they got the loans, and they don't intend to risk any of it now.

The Rothschilds acted as if they were ready to shut down the refinery and split the equity, if it came to that. But give up their other properties? No sir. That would have been a Chapter 7 proceeding, but Chapter 11 evidently looked better to the banks.

Powerine president Matthew F. Stewart, formerly president of Edgington Oil, another California independent refiner, who joined Powerine not long ago to run it under the new rules, doesn't speak too grimly of the prospects.

"Creditors will continue to support us financially under Chapter 11, he says. "This means the debtor in possession continues to operate the company."

How long can this go on? "As long as you want, 20 years. . . . Eventually you'd like to come out. There's no real time limit to how long you do it. It really is a function of how long you continue in business, and how long it will take you to work it out."

## EPA: Up to $450,000 in Fines and Engine Fixes For Michigan Misfueler

**The federal crackdown on misfueling rolls on.**

Mid States Petroleum has agreed to pay $100,000 in fines and replace up to 3,000 damaged catalytic converters free of charge for illegally selling 700,000 gallons of leaded gasoline as unleaded fuel at service stations in Michigan.

The Environmental Protection Agency, which conducted the investigation of the illegal sales, said Mid States has also agreed to adopt stringent quality controls and endow the University of Michigan and the Detroit College of Law with donations promoting research and enforcement of the Clean Air Act.

Mid States is a Union Oil distributor. EPA investigators found that a Mid States subsidiary, Capital City Oil Co., delivered leaded gasoline into unleaded storage tanks at nine Michigan service stations owned and operated by the parent firm between Dec. 17, 1982, and April 1, 1983. The stations displayed the Mid States or Union 76 trade names.

EPA officials obtained an administrative search warrant to sift through Capitol City fuel purchase and delivery records before issuing its findings. Joseph A. Cannon, EPA assistant administrator for air and radiation, said, "While I applaud the efforts of a company to admit responsibility and repair the damages it has caused, it is disturbing to find one of the nation's largest refiners (Union) selling leaded gasoline as unleaded fuel over large parts of a state for months without adequate oversight or testing to protect the public."

Mid States has begun testing catalytic converters on cars and trucks at the nine service stations where violations occurred. The company has agreed to spend up to $350,000 replacing damaged converters where evidence of lead is detected in the exhaust system.

## Most Majors Market Some Alcohol Fuel, Says Research Firm

**An overwhelming majority of major and semi-major oil companies market an alcohol fuel blend and, at least four additional companies have studied the prospects, according to an ongoing study by Information Resources, Inc., a Washington D.C.-based research consulting firm.**

Fifteen out of the 23 companies profiled by Information Resources between last November and mid-April market an alcohol fuel blend. Union, Gulf, Mobil, Sohio, Kerr-McGee, Marathon, Shell and Exxon are the only non-blenders. (IRI said Sun Refining and Marketing was test-marketing Oxinol, a methanol blend, but the company has since discontinued the program because of anti-methanol publicity.)

Some of the most active blenders include Arco, Ashland, Southland Corp., Total Petroleum, MAPCO Petroleum and Rock Island Fuel. Alcohol blend sales account for about 55% of MAPCO's total gasoline sales, 35% to 40% of Rock Island's, 22% of Total's, 20% of Arco's, 14% of Ashland's and 10% of Southland's.

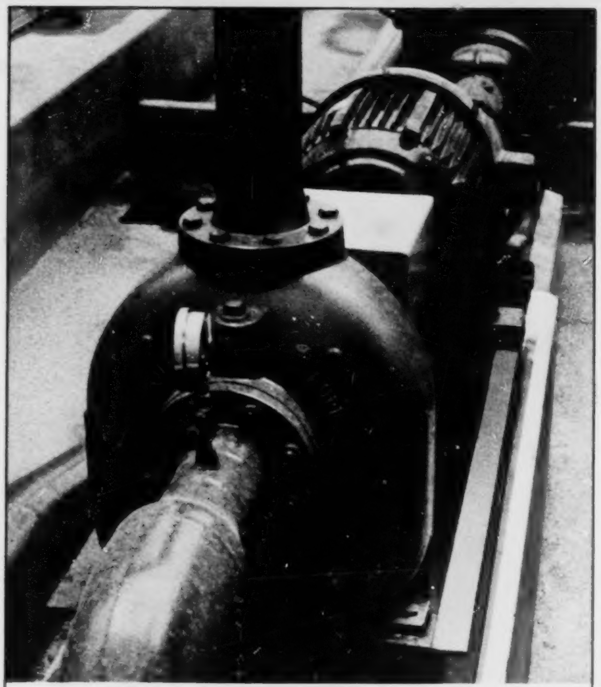
The study suggests oil companies are still quite hesitant to market methanol blends. Only Arco, Sun, Southland and MAPCO are marketing oxinol, a methanol blend developed by Arco.

Six of the companies own all or part of either an ethanol or methanol production facility.

Blends as Percentage of Gasoline Sales

| | |
|---|---|
| **Amoco** | 4% |
| **Ashland** | 14% |
| **Arco** | 20% |
| **Chevron** | 1.1% |
| **Conoco** | NA |
| **Getty** | Less than 1% |
| **Koch** | NA |
| **MAPCO** | 50%-55% |
| **Phillips** | Less than 5% |
| **Rock Island** | 35%-40% |
| **Southland** | 10% |
| **Sun** | Less than 1% |
| **Texaco** | 5% |
| **Total Petr'm** | 22% |

Source: Information Resources, Inc., Washington, D.C.



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The stores are a pitch for the growing number of do-it-yourself car owners, as well as professional dealers and mechanics.

"It's certainly a high-growth industry," says Action Auto's president Dick Sabo, an 18-million-gal.-a-year Sun jobber. "We're catering to a middle to lower-middle income group that needs to fix their own cars."

The primarily small-town stores each average about 85,000 gal./month with $50,000 monthly on inside store sales. Action Auto stores dramatically discount fast-moving items such as anti-freeze and spark plugs, with higher margins on auto repair parts such as filters, clutches and brakes. Store items draw an average 30% gross profit margin.

Sabo says Action Auto's warehouse and distribution operations allow the firm to discount parts by buying 80% of the chain's parts inventory direct from manufacturers. The typical store stocks 12,000 different auto and truck parts, including high-performance oils, chemicals, accessories and hard parts.

Sabo estimates it would take $200,000 to convert an old service station into an Action Auto store, including inventory, fixtures, signage and land. A ground-up version would run about $300,000, he says.

## Tuneup Market Shows Increases, But, Service Station Share Weakens

**Although the tuneup market has rebounded since 1980, there are still millions of cars on the road today that are overdue for a tuneup, according to Champion Spark Plug's 1983 Consumer Maintenance Survey.**

Motorists who *are* having their cars tuned are turning away from service stations and new-car dealers and tuning up at garages, repair shops or in their own backyards.

In 1983, 66.3% of the cars in the survey were tuned up, over a low of 62.9% in 1980. The study says these figures are low compared to earlier years. In 1970, for example, an estimated 79.4% of the cars were tuned; in 1973, 78.6%; and in 1978, 70.8%. Champion blames the relatively low number of tuned cars on poor economic conditions and motorist apathy toward auto service.

"We feel the trend could be reversed," says a Champion spokesman, "but we need to communicate more with the car owner the benefits of having the car tuned periodically. Fuel economy can be improved, for example."

The 1,000-family study suggests the number of do-it-yourselfers is on the rise. The backyard tuneup business has grown more than any other segment, jumping from 29.5% in 1973 to 35.4% of the motorists surveyed in 1983. It isn't difficult to see why: The average cost of a do-it-yourself tuneup in 1983 was $24.70, compared to $68.53 at service stations, $79.06 at repair shops, $82.95 at car dealers and $71.18 at ignition specialty shops. And, the study shows the do-it-yourselfers were more satisfied with the tuneup, than were motorists who relied on repair facilities.

It is the do-it-yourself and self-serve gasoline trend which Champion feels has contributed to the shrinking market share retained by service station tuneups. Last year, the new-car dealer and service station shares of the tuneup market each were down 6.5 percentage points from 1973. The service station market dropped from 19.4% 10 years previous to 12.9% in 1983, and the new-car dealer share, from 26.3% to 19.8% in 1983. Garage and repair shop tuneups, however, seized 24.2% of the market, up from 20.6% in 1973. The market for mass merchandisers and specialty shops grew to 7.7%, from 4.2% since 1973.

### Where Motorists Received Tuneups . . .

| | service station | new-car dealer | garage/ repair shop | do-it-yourself | other |
|---|---|---|---|---|---|
| **1983** | 12.9% | 19.8% | 24.2% | 35.4% | 7.7% |
| **1978** | 16.5 | 23.2 | 22.0 | 33.4 | 4.9 |
| **1973** | 19.4 | 26.3 | 20.6 | 29.5 | 4.2 |

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ANNUAL ISSUE

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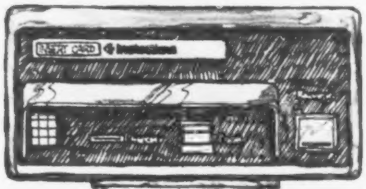
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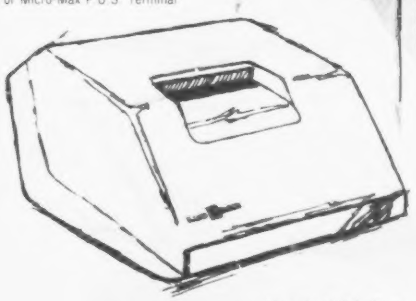
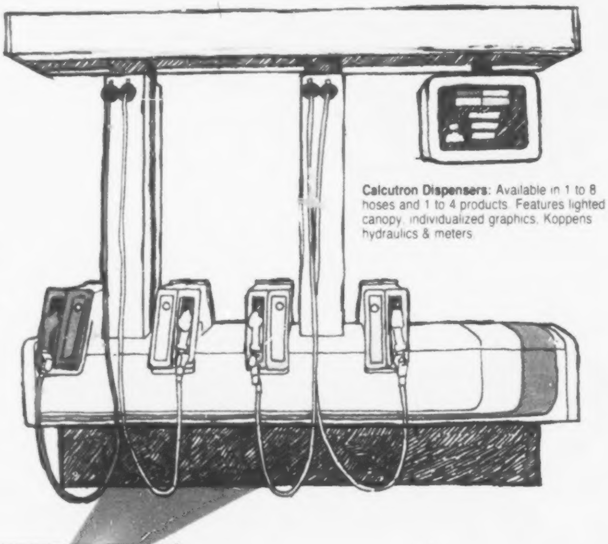

**Ticket Printer**: Dot matrix interfaces with KCD Console or Micro-Max P.O.S. Terminal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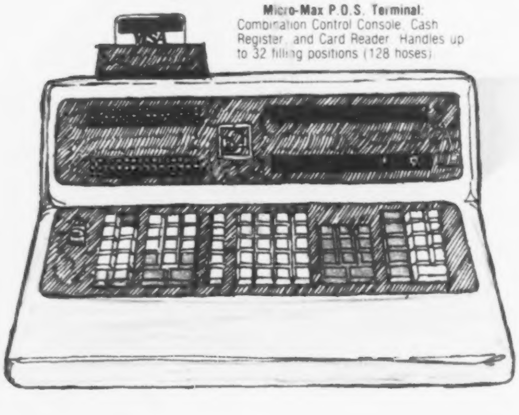
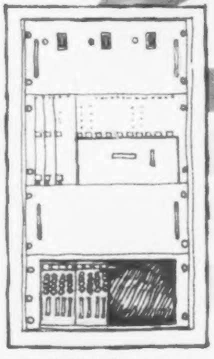
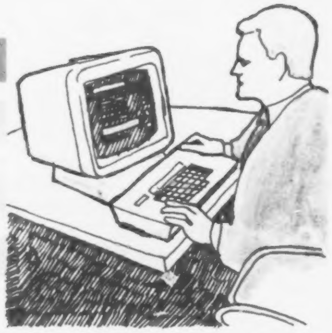

**Micro-Max P.O.S. Terminal**: Combination Control Console, Cash Register, and Card Reader. Handles up to 32 filling positions (128 hoses)


**Central Control Unit**: the power supply and source of electronic communications for all peripherals. Features a built-in printer for hard copy reports of station sales data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# Looking Things Over

**We had hoped right up to the point of no return—the date when the copy flow for the 1984 *Factbook* had to be shut off so the presses could be started and the issue could be printed—that we would be able to include gobs of data from the U.S. Census Bureau's Survey of Retail Businesses. This survey was made in 1982, and the one before that in 1977. So the industry is long overdue in an updating of its statistical measurements. But things simply did not work out the way they should have.**

Last fall, for example, a Census Bureau spokesman said things were moving along very well and that the first national summaries would be published before the end of the year—1983, that is. In January, the word was "early spring." In May, the spokesman said the fuel oil data had been tabulated and sent to the government printer but that no one could get copies until they had been re-reviewed and released for distribution. He said that might be four to six weeks.

The gasoline service station data was in even worse shape. The last week in April, Bureau officials were not happy with their findings, so they decided to re-enter the data, rework it and perhaps get a better statistical profile out of the computer. Indications are that it will be mid- to late-summer before the gasoline data is published—long after *NPN Factbook* has been distributed to the thousands of subscribers who prize it as the industry's bible and reference tome.

That is why there is no 1982 census data in the 1984 *Factbook*. We waited as long as we could, but time ran out. All is not lost, however. The principal pages and summaries will be published in various issues of *NPN* this summer and fall, as fast as they become available. You might want to clip them and insert them in the current *Factbook*. That way, you'll have them available until the 1985 *Factbook* gives you a comprehensive report.

There are some other changes in the current *Factbook* that you should know about. The price tables are somewhat different this year. That's because the federal government, as part of its retrenchment program, changed a number of its data collection procedures and the finished results. They do not correspond to the 1982 and earlier tables, so a whole new series is started in this 1983 edition.

Otherwise, the 1984 *Factbook* is chockfull of the traditional materials that many people depend upon to keep abreast of what's happening in the industry. A point to remember: the 1984 *Factbook* is a calendar year effort, so the mergers and acquisitions of late 1983 and early 1984—and the others that are sure to come—will not truly be reflected in the data until next year. —*Marvin Reid*

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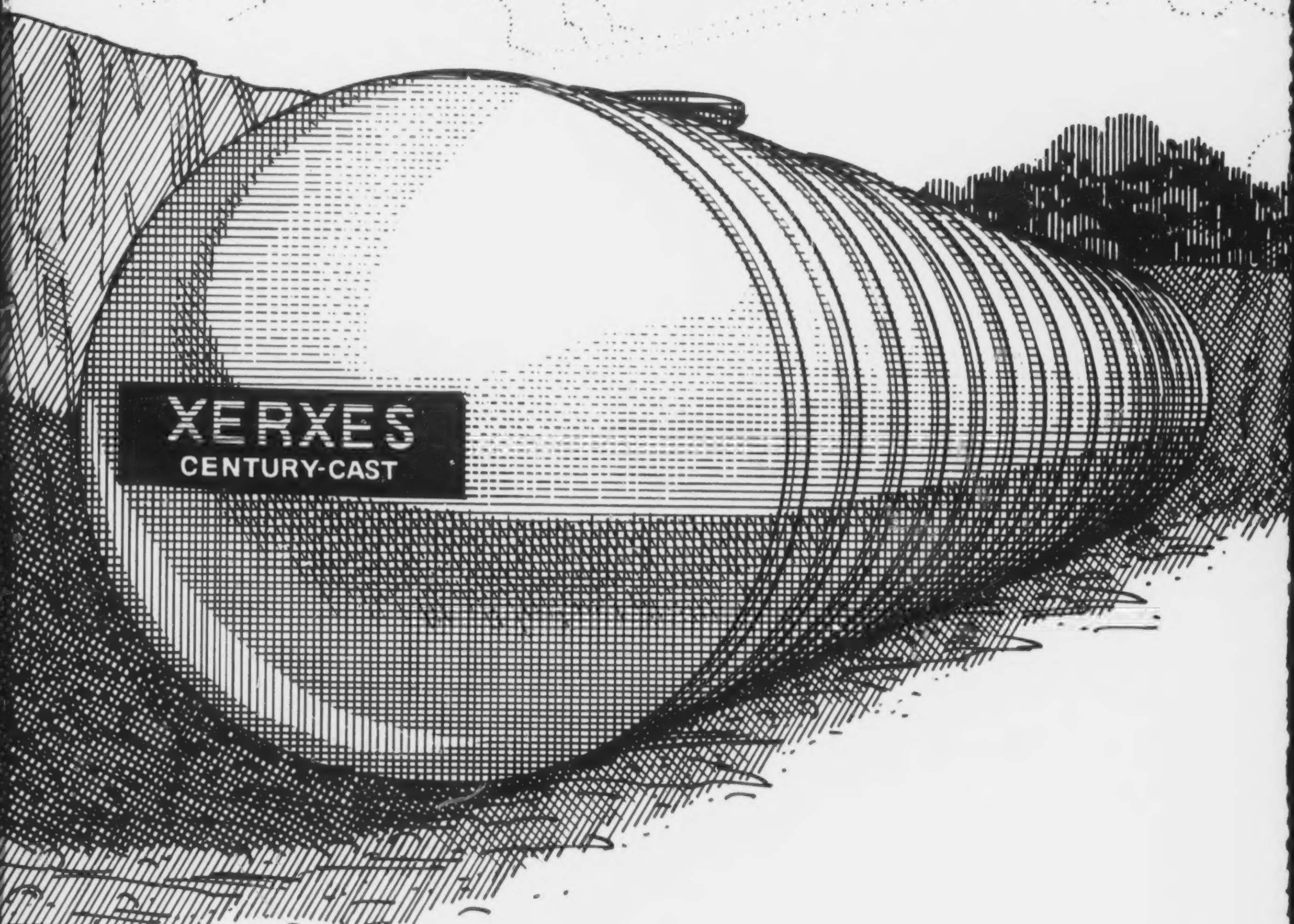

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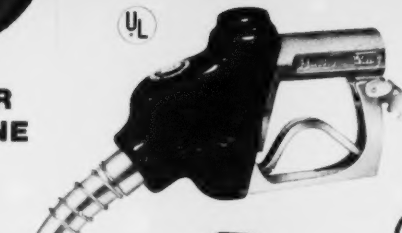

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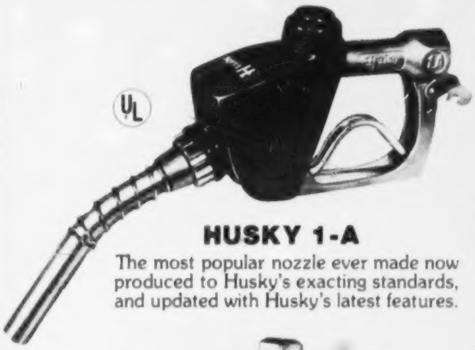

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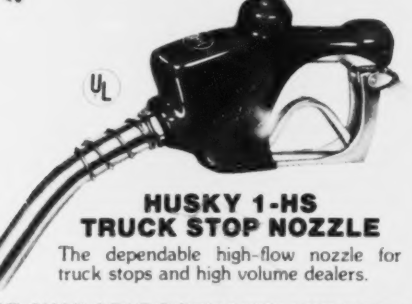

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**LOUISIANA**—Houma (B,T)
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**MARYLAND**—Ba[illegible] Tanker) UNDER CONTRACT
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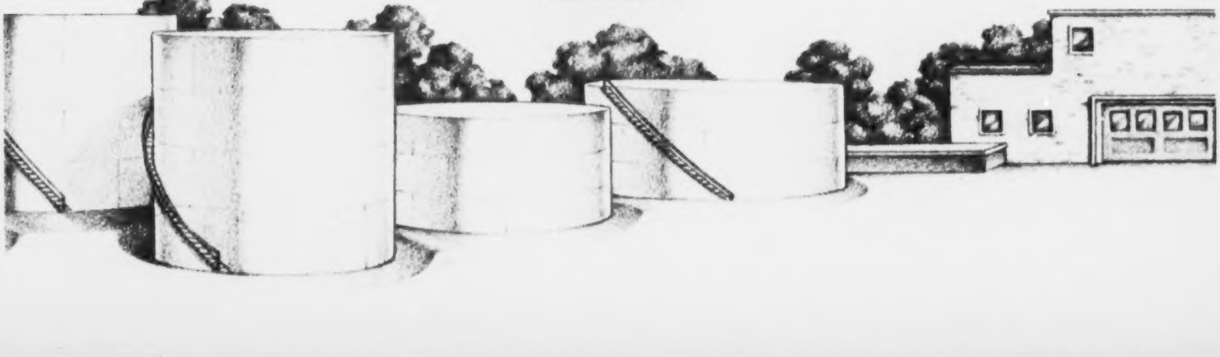

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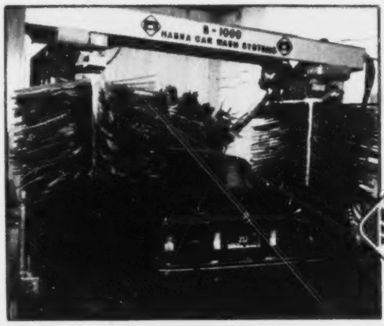
—Bill Bagshaw—Mobil Self-Serve, Newington, CT



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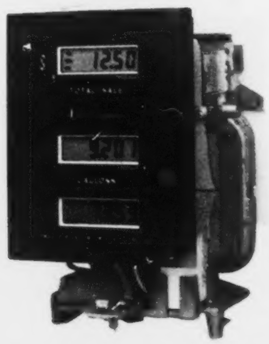

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# Mergers Change Face of Industry in '83–'84

**Merger fever swept the U.S. oil industry in 1983 and the first quarter of 1984 as never before. As a result, the face of the industry is undergoing a change that is traumatic in depth and scope.**

Early in 1983, Cities Service, which had been acquired by Occidental Petroleum, was virtually dismantled and sold in bits and pieces. Southland Corp., the nation's biggest C-store chain, got the marketing facilities and a big refinery at Lake Charles, La. Southland, already the nation's biggest independent gasoline marketer (more than 1.5-billion gal. yearly) thus strengthened its position and its outlook.

But the big news came from Texaco, Chevron and Mobil.

While the heirs to the J. Paul Getty fortune were squabbling over managerial rights and privileges, Texaco elbowed Pennzoil Corp. aside, stepped into the breech with a $10.1-billion offer, and bought Getty Oil Co.

Texaco combined this with a pledge to Federal Trade Commission to spin off the Getty marketing facilities on the East Coast and the Midwest/Mid-Continent/Rockies area to avoid antitrust entanglements. Buyer of the East Coast Getty chain was Power Test Corp., of Plainview, N.Y., a fair-sized independent who, if the deal sticks together, will become the largest straight independent gasoline marketer in the U.S. (Southland now owns a refinery, so this changes its status somewhat as a gasoline marketer.).

While all this was going on, a Texas entrepreneur and a group of associates were trying to force Gulf Oil to its knees and accept a royalty trust concept that management would not approve. It made Gulf vulnerable and, rather than submit to T. Boone Pickens and friends, Gulf put itself on the block. Chevron outbid Arco, offering $13.2-billion for the coast-to-coast chain. Like Texaco, it promised FTC that it would divest any and all marketing properties necessary to square itself with the antitrust laws.

Still another big deal was Mobil's purchase of Superior Oil Co. for $5.7-billion. Here again a family squabble made Superior a sitting duck. Since Superior was strictly an exploration and production company, no antitrust problems were anticipated in this acquisition.

The financial people and Wall Street talked of other sitting ducks in the oil industry, citing Phillips, Sun and Amerada Hess among the many out there. But these companies were not sitting idly by either. All were said to have quickly initiated internal programs and financial arrangements to forestall hostile offers and takeover bids.

Profitwise, the industry didn't do badly in 1983. An upswing in the fourth quarter was especially helpful, and at the end of the first quarter of 1984, the money outlook continued to be good.

The industry still had eight companies in its exclusive "billionaires club" at the end of 1983. They were Exxon, Standard of Indiana, Shell, Standard of California, Atlantic Richfield, Standard of Ohio, Mobil and Texaco, in that order. Exxon was at the top, with a net of $4.9-billion and Texaco was at the bottom of the pile with a mere $.2-billion.

# Ranking the Top Marketing Companies

| | Total Assets | | Net Income | | Net Sales Ranking Among 500 U.S. Corporations (a) | |
|---|---|---|---|---|---|---|
| | 1983 | 1982 | 1983 | 1982 | 1983 | 1982 |
| Exxon Corp. | 1 | 1 | 1 | 1 | 1 | 1 |
| Mobil Oil Corp. | 2 | 2 | 7 | 6 | 3 | 3 |
| Texaco Inc. | 3 | 3 | 8 | 8 | 6 | 4 |
| Standard Oil (Indiana) | 4 | 4 | 2 | 3 | 8 | 10 |
| Standard Oil (California) | 5 | 5 | 4 | 7 | 9 | 7 |
| Atlantic Richfield Co. | 6 | 6 | 5 | 4 | 12 | 12 |
| Shell Oil Co. | 7 | 7 | 3 | 5 | 13 | 13 |
| Gulf Oil Corp. | 8 | 8 | 9 | 9 | 11 | 9 |
| Tenneco, Inc. (a) | 9 | 9 | 11 | 10 | 19 | 19 |
| Standard Oil (Ohio) | 10 | 10 | 6 | 2 | 25 | 21 |
| Phillips Petroleum Co. | 11 | 11 | 10 | 13 | 16 | 17 |
| Sun Co. | 12 | 12 | 14 | 14 | 17 | 18 |
| Getty Oil Co. | 13 | 13 | 13 | 12 | 24 | 24 |
| Union Oil (California) | 14 | 14 | 12 | 11 | 31 | 28 |
| Amerada-Hess Corp. | 15 | 15 | 15 | 18 | 39 | 40 |
| Diamond Shamrock Corp. | 16 | 18 | 21 | 17 | 89 | 121 |
| Ashland, Inc. (b) | 17 | 16 | 19 | 19 | 45 | 36 |
| Kerr-McGee Corp. | 18 | 17 | 18 | 15 | 108 | 99 |
| Pennzoil Corp. | 19 | 19 | 16 | 16 | 163 | 169 |
| Murphy Oil Corp. | 20 | 20 | 17 | 20 | 157 | 151 |
| American Petrofina | 21 | 21 | 20 | 21 | 176 | 171 |

---

(a) Corporate, includes Tenneco Oil Co., (b) Fiscal ends 9/30

Source: Fortune, 500 largest U.S. corporations, April 30, 1984

# Oil Company Annual

| Company | Gross Sales-Operating Revenues (a) | | | | Net Income | |
|---|---|---|---|---|---|---|
| | (Add 000) | | % Change | | (Add 000) | |
| | 1983 | 1982 | 1983 vs. 1982 | 1983 vs. 1978 | 1983 | 1982 |
| Amerada Hess Corp. | $ 8,422,076 | $ 8,394,085 | .33% | 78.0% | $ 205,347 | $ 168,662 |
| American Petrofina | 2,069,122 | 2,249,167 | −8.0 | 77.0 | 55,260 | 54,401 |
| Ashland, Inc. | 8,108,000 | 9,110,000 | −11.0 | 49.4 | 97,000 | 165,000 |
| Atlantic Richfield Co. | 25,147,000 | 26,462,000 | −4.9 | 97.4 | 1,548,000 | 1,676,000 |
| CITGO Petroleum Corp. (b) | 2,871,339 | 1,259,493 | 127.9 | — | 22,731 | 23,009 |
| Crown Central Petroleum Corp. | 1,668,345 | 1,792,315 | — | — | 4,024 | 7,016 |
| Diamond Shamrock Corp. | 4,026,107 | 3,177,379 | 26.7 | 510.0 | (56,163) | 185,091 |
| Exxon Corp. | 93,447,000 | 102,059,000 | −8.4 | 44.0 | 4,978,000 | 4,186,000 |
| Getty Oil Corp. | 11,600,024 | 11,970,734 | −3.1 | 230.0 | 494,314 | 691,590 |
| Gulf Oil Corp. | 28,887,000 | 30,630,000 | −5.6 | 43.7 | 978,000 | 900,000 |
| Kerr-McGee Corp. | 3,507,650 | 3,777,190 | −7.1 | 69.2 | 118,412 | 209,764 |
| Marathon Oil Co. | — | — | — | — | — | — |
| Mobil Oil Corp. | 55,609,000 | 60,940,000 | −8.7 | 41.0 | 1,503,000 | 1,213,000 |
| Murphy Oil Corp. | 2,388,491 | 2,602,455 | −8.2 | 1.0 | 131,907 | 157,759 |
| Phillips Petroleum Corp. | 15,411,000 | 15,892,000 | −3.0 | 54.6 | 721,000 | 646,000 |
| Shell Oil Corp. | 20,705,000 | 20,786,000 | −.39 | 87.1 | 1,633,000 | 1,605,000 |
| Standard Oil Co. of California | 28,411,000 | 35,218,000 | −19.3 | 15.5 | 1,590,000 | 1,377,000 |
| Standard Oil Co. (Indiana) | 27,635,000 | 28,073,000 | −1.6 | 84.7 | 1,868,000 | 1,826,000 |
| Standard Oil Co. (Ohio) | 12,067,000 | 13,529,000 | −10.8 | 132.1 | 1,512,000 | 1,879,000 |
| Sun Co. | 15,523,000(c) | 16,258,000(c) | −4.5 | 108.9 | 453,000 | 537,000 |
| Tenneco | 14,449,000 | 14,979,000 | −3.5 | 617.0 | 716,000 | 840,000 |
| Texaco Inc. | 40,068,000(d) | 46,986,000(d) | −14.7 | 40.1 | 1,233,000 | 1,281,000 |
| Union Oil Co. of California | 10,690,500 | 10,899,100 | −1.9 | 83.0 | 625,900 | 804,000 |

---

(a) Excluding taxes

(b) Owned by The Southland Corp. Figures are only for the gasoline refining & supply segment—includes Citgo Refinery, interests in pipeline companies, and related wholesale, marketing and transportation facilities, as well as the Gasoline Supply Division, which constituted the entire segment until the acquisition of Citgo on August 31, 1983.

| Company | Product Imports b/d | | Crude Imports b/d | | Net Crude Production b/d | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Domestic | | Foreign | |
| | 1983 | 1982 | 1983 | 1982 | 1983 | 1982 | 1983 | 1982 |
| Amerada Hess Corp. | — | — | — | — | 74,124 | 76,519 | 80,451 | 76,311 |
| American Petrofina | — | — | — | — | 18,197 | 17,696 | — | — |
| Ashland, Inc. | — | — | — | — | 2,677 | 2,725 | 14,066 | 13,840 |
| Atlantic Richfield Co. | — | — | — | — | 652,800 | 607,400 | 41,900 | 35,300 |
| CITGO Petroleum Corp. (w) | — | — | — | — | — | — | — | — |
| Crown Central Petroleum Corp. | — | — | 16,394 | 28,283 | 3,833 | 3,586 | — | — |
| Diamond Shamrock Corp. | — | — | — | — | 29,500 | 19,300 | 21,500 | — |
| Exxon Corp. | 138,000 | 134,000 | 56,000(x) | 184,000(x) | 781,000 | 740,000 | 746,000 | 627,000 |
| Getty Oil Corp. | — | — | — | — | 283,800 | 279,900 | 130,000 | 142,700 |
| Gulf Oil Corp. | 20,300 | 21,000 | 227,200 | 238,800 | 253,300 | 263,700 | 253,300 | 234,800 |
| Kerr-McGee Corp. | — | — | — | — | 25,805 | 25,063 | 15,491 | 15,156 |
| Marathon Oil Co. | — | — | — | — | 157,300 | 160,100 | 89,400 | 74,700 |
| Mobil Oil Corp. | 5,000 | 1,000 | 127,000 | 161,000 | 304,000 | 309,000 | 287,000 | 268,000 |
| Murphy Oil Corp. | 0 | 0 | 18,293 | 8,032 | 16,605 | 14,722 | 47,740 | 49,926 |
| Phillips Petroleum Corp. | — | — | — | — | 127,000 | 112,000 | 127,000 | 114,000 |
| Shell Oil Co. | — | — | — | — | 626,000 | 549,000 | 202,000 | 238,000 |
| Standard Oil Co. of California | — | — | — | — | 353,000 | 369,000 | 1,018,000 | 1,494,000 |
| Standard Oil Co. (Indiana) | 11,000 | 17,000 | 293,000 | 278,000 | 403,000 | 409,000 | 383,000 | 357,000 |
| Standard Oil Co. (Ohio) | — | — | — | — | 612,000 | 694,000 | — | — |
| Sun Co. | — | — | — | — | 204,653 | 212,093 | 29,402 | 29,559 |
| Tenneco | — | — | — | — | 77,637 | 82,010 | 37,997 | 38,039 |
| Texaco Inc. | — | — | — | — | 346,000(y) | 352,000(y) | 1,140,000 | 1,543,000 |
| Union Oil Co. of California | — | — | — | — | 152,900 | 151,300 | 73,100 | 68,700 |

---

*Includes natural gas liquids and liquid condensate.

(w) 1982 Cites Service data not available because it was not disclosed by then-owner Occidental Petroleum Corp. 1983 CITGO Petroleum Corp. data not available following acquisition by The Southland Corp.

(x) Excludes crude imported and processed for other companies.

# Reports for 1983

| Net Income | | Net Income % of Gross Sales | | Total Assets | | | | Net Income as % of average stockholder equity | |
|---|---|---|---|---|---|---|---|---|---|
| % Change | | | | (Add 000) | | % Change | | | |
| 1983 vs. 1982 | 1983 vs. 1978 | 1983 | 1982 | 1983 | 1982 | 1983 vs. 1982 | 1983 vs. 1978 | 1983 | 1982 |
| 21.7% | 44.2% | 2.4% | 2.0% | 6,217,098 | 6,145,303 | 1.2% | 81.0% | 8.1% | 6.6% |
| 1.6 | 70.8 | 2.6 | 2.4 | 1,399,268 | 1,166,022 | 20.0 | 42.5 | 9.4 | 9.3 |
| −41.2 | −60.4 | 1.2 | 1.8 | 4,108,000 | 4,210,000 | −2.5 | 42.3 | 8.9 | 15.7 |
| −7.6 | 92.4 | 6.2 | 6.3 | 23,282,000 | 21,633,000 | 7.6 | 94.0 | 14.9 | 18.1 |
| −1.2 | — | .79 | 1.8 | 1,390,419 | 139,676 | 895.5 | — | — | — |
| −42.6 | — | 0.24 | 0.39 | 652,947 | 643,055 | 1.5 | — | 1.86 | 3.20 |
| −130.0 | −152.8 | (3.1) | 10.8 | — | 3,194,013 | — | — | — | — |
| 18.9 | 80.1 | 5.3 | 4.1 | 62,963,000 | 62,289,000 | 1.1 | — | 17.2 | 14.9 |
| −28.5 | 50.8 | 4.3 | 5.8 | 10,385,050 | 9,924,490 | −4.6 | 120.1 | 9.4 | 14.0 |
| 8.6 | 23.6 | 3.3 | 2.9 | 20,954,000 | 20,436,000 | 2.5 | 39.3 | — | — |
| −43.5 | .21 | 3.4 | 5.6 | 3,806,934 | 3,762,618 | 1.2 | 88.3 | 7.0 | 13.2 |
| — | — | — | — | — | — | — | — | — | — |
| 23.9 | 33.5 | 2.7 | 2.0 | 35,072,000 | 35,216,000 | .41 | 55.1 | 10.8 | 8.5 |
| −16.4 | 183.1 | 5.52 | 6.06 | 2,807,837 | 2,989,523 | −6.1 | 85.1 | 14.0 | 18.8 |
| 11.6 | 1.4 | 4.7 | 4.0 | 13,094,000 | 12,097,000 | 8.2 | 88.8 | 11.7 | 11.1 |
| 1.7 | 100.7 | 7.9 | 7.7 | 22,169,000 | 21,376,000 | 3.7 | 120.7 | 14.3 | 15.5 |
| 15.5 | 43.8 | 5.6 | 3.9 | 24,010,000 | 23,490,000 | 2.2 | 43.2 | — | — |
| 2.3 | 73.5 | 6.8 | 6.5 | 25,805,000 | 24,289,000 | 6.2 | 82.9 | 15.7 | 16.5 |
| −19.5 | 235.8 | — | — | 16,362,000 | 16,016,000 | 2.2 | 96.5 | — | — |
| −15.6 | 24.0 | 2.9 | 3.3 | 12,466,000 | 11,850,000 | 5.2 | 126.7 | 8.7 | 10.5 |
| −14.8 | 48.9 | 4.9 | 5.6 | 17,994,000 | 17,378,000 | 3.5 | 628.2 | X | X |
| −3.7 | 44.6 | 3.1 (e) | 2.7 (e) | 27,199,000 | 27,114,000 | .31 | 34.3 | 8.6 | 9.2 |
| −22.2 | 63.0 | 5.9 | 7.3 | 9,228,000 | 8,511,300 | 8.4 | — | 12.6 | 18.2 |

---

(c) Includes excise taxes.
(d) Total sales & services.
(e) Net income as % of total sales & services.

| Refinery Crude Runs b/d | | | | Total domestic production as % of total domestic runs | | Domestic refined petroleum product sales b/d | |
|---|---|---|---|---|---|---|---|
| Domestic | | Foreign | | | | | |
| 1983 | 1982 | 1983 | 1982 | 1983 | 1982 | 1983 | 1982 |
| 341,000 | 416,000 | — | — | 21.7% | 18.4% | 462,000 | 463,000 |
| 105,310 | 114,640 | — | — | 17.3 | 15.4 | 136,485 | 140,200 |
| 285,029 | 312,200 | — | — | .94 | .87 | 358,900 | 394,575 |
| 697,000 | 670,200 | 0 | 0 | 93.7 | 90.6 | 729,500 | 673,800 |
| — | — | — | — | — | — | — | — |
| 82,992 | 71,257 | 11,576 | 24 670 | 4.62 | 5.03 | 113,148 | 120,763 |
| 103,000 | 66,000 | — | — | — | — | 131,000 | 90,000 |
| 958,000 | 989,000 | 2,308,000 | 2,507,000 | 81.5 | 74.8 | 1,146,000 | 1,117,000 |
| 245,800 | 237,100 | 39,900 | 37,300 | 115.5 | 118.1 | 310,000 | 281,000 |
| 623,200 | 649,100 | 315,400 | 377,600 | 40.6 | 40.4 | 685,100 | 716,200 |
| 119,135 | 118,353 | — | — | 21.7 | 21.2 | 163,508 | 157,441 |
| 374,254 | 392,781 | 45,346 | 40,616 | 42.0 | 41.0 | 431,146 | 441,027 |
| 618,000 | 644,000 | 976,000 | 1,067,000 | 49.0 | 48.0 | 699,000 | 699,000 |
| 90,344 | 91,484 | 21,786 | 27,742 | 18.4 | 16.1 | 95,052 | 96,063 |
| 260,000 | — | — | — | 48.8 | — | 505,000 | 513,000 |
| 894,000 | 853,000 | — | — | 70.0 | 64.4 | 846,000 | 811,000 |
| 845,000 | 867,000 | 588,000 | 678,000 | 41.8 | 42.6 | 932,000 | 950,000 |
| 820,000 | 796,000 | 99,000 | 129,000 | 49.1 | 51.4 | 860,000 | 852,000 |
| 393,700 | 360,100 | — | — | 100 | 100 | 404,700 | 370,900 |
| 377,328 | 366,393 | 71,128 | 70,650 | 54.2 | 57.9 | 515,719 | 512,048 |
| 83,654 | 92,921 | — | — | 92.8 | 88.3 | 129,455 | 132,486 |
| 676,000(z) | 694,000(z) | 1,032,000 | 1,101,000 | 51.2 | 50.7 | 826,000 | 793,000 |
| 380,300 | 363,900 | — | — | 40.2 | 41.5 | 386,000 | 364,200 |

---

(y) Including interests in non-subsidiary companies.
(z) Including interests in non-subsidiary companies.
Source: NPN questionnaires and annual reports.

# Quarterly and Full-Year Earnings—1983 vs. 1982

**(Add 000,000)**

| | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. | Full-Year 1983 | Full-Year 1982 | % Change |
|---|---|---|---|---|---|---|---|
| Exxon Corp. | $1,060.0 | $1,075.0 | $1,225.0 | $1,630.0 | $4,990.0 | $4,190.0 | 19.1% |
| Mobil Oil Corp. | 250.0 | 402.0 | 404.0 | 445.0 | 1,501.0 | 1,213.0 | 23.7% |
| Texaco Inc. | 319.0 | 327.0 | 331.0 | 256.0 | 1,233.0 | 1,281.0 | (3.7) |
| Standard Oil Co. (Indiana) | 399.0 | 426.0 | 584.0 | 459.0 | 1,868.0 | 1,826.0 | 2.3 |
| Standard Oil Co. (California) | 310.0 | 368.0 | 509.0 | 403.0 | 1,590.0 | 1,380.0 | 15.2 |
| Atlantic Richfield Co. | 310.4 | 393.4 | 405.1 | 419.0 | 1,547.0 | 1,676.1 | 7.6 |
| Shell Oil Co. | 246.0 | 390.0 | 449.0 | 549.0 | 1,633.0 | 1,605.0 | 1.7 |
| Gulf Oil Corp. (a) | 182.0 | 223.0 | 276.0 | 297.0 | 978.0 | 900.0 | 8.7 |
| Tenneco Inc. | 111.0 | 205.0 | 159.0 | 241.0 | 716.0 | 819.0 | (12.6) |
| Standard Oil Co. (Ohio) | 277.0 | 476.0 | 435.0 | 324.0 | 1,512.0 | 1,879.0 | (19.5) |
| Phillips Petroleum Co. | 129.0 | 169.0 | 176.0 | 247.0 | 721.0 | 646.0 | 11.6 |
| Sun Co. | 90.0 | 135.0 | 167.0 | 61.0 | 453.0 | 537.0 | (15.6) |
| Getty Oil Co. (b) | 157.8 | (86.1) | 183.7 | 238.9 | 494.3 | 691.6 | (28.5) |
| Union Oil Co. of California | 128.3 | 139.4 | 180.2 | 178.0 | 626.0 | 804.0 | (22.1) |
| Amerada-Hess Corp. | 5.0 | 68.2 | 75.1 | 57.0 | 205.3 | 168.7 | 21.7 |
| Ashland, Inc. | 29.1 | (14.5) | 37.1 | 51.1 | 102.8 | 180.9 | (43.2) |
| Kerr-McGee Corp. | 23.7 | 37.8 | 39.7 | 17.1 | 118.4 | 209.8 | (43.5) |
| Diamond-Shamrock Corp. | 4.6 | 29.5 | 39.7 | (130.0) | (56.2) | 185.1 | — |
| Murphy Oil Corp. | 27.9 | 40.4 | 39.8 | 24.0 | 132.0 | 158.0 | (16.5) |
| American Petrofina Co. | 0.3 | 8.6 | 23.0 | 55.3 | 23.4 | 14.8 | 58.1 |
| Crown Central Petroleum Corp. | (10.5) | 3.9 | 3.6 | 7.0 | 4.0 | 7.0 | (42.6) |
| Southland Corp. (d) | 7.7 | 34.0 | 60.1 | 36.8 | 138.6 | 101.2 | 40.0 |

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(a) Gulf Oil was in the process of being purchased by Standard Oil Co. (California) in the Spring of 1984. (b) Getty Oil was in the process of being purchased by Texaco Inc. in the Spring of 1984. (c) Fiscal year ends 9/30 so these reflect four normal quarters. (d) Southland bought Cities Service from Occidental Petroleum early in 1983 and, although primarily a C-Store chain, also became the nation's leading independent gasoline marketer. Special note: Conoco, Inc. is now a division of Du Pont Co. and Marathon Petroleum is a division of U.S. Steel Corp. Quarterly and annual earnings are not published by either parent company.

# How They Fared in 1982 vs. 1981

**(Add 000,000)**

| | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. | Full-Year 1982 | Full-Year 1981 | % Change |
|---|---|---|---|---|---|---|---|
| Exxon Corp. | $839.0 | $849.0 | $1,017.0 | $1,430.0 | $4,190.0 | $4,826.0 | (13.3%) |
| Mobil Oil Corp. | 244.0 | 287.0 | 284.0 | 398.0 | 1,213.0 | 2,433.0 | (43.3) |
| Texaco Inc. | 367.0 | 305.0 | 303.0 | 306.0 | 1,281.0 | 2,310.0 | (44.5) |
| Standard Oil Co. (Indiana) | 470.0 | 382.0 | 559.0 | 415.0 | 1,826.0 | 1,922.0 | (5.0) |
| Standard Oil Co. (California) | 230.0 | 263.0 | 459.0 | 425.0 | 1,380.0 | 2,380.0 | (42.0) |
| Atlantic Richfield Co. | 385.0 | 409.8 | 446.9 | 434.0 | 1,676.1 | 1,671.3 | 0.3 |
| Shell Oil Co. | 345.0 | 380.0 | 442.0 | 438.0 | 1,605.0 | 1,700.0 | (5.3) |
| Gulf Oil Corp. | 288.0 | 227.0 | 159.0 | 226.0 | 900.0 | 1,230.0 | (26.8) |
| Tenneco, Inc. | 129.0 | 204.0 | 198.0 | 288.0 | 819.0 | 813.0 | 0.7 |
| Standard Oil Co. (Ohio) | 455.0 | 473.0 | 487.0 | 464.0 | 1,879.0 | 1,946.9 | (3.5) |
| Phillips Petroleum Co. | 192.0 | 146.0 | 153.0 | 155.0 | 646.0 | 879.4 | (26.6) |
| Sun Co. | 124.0 | 110.0 | 152.0 | 151.0 | 537.0 | 1,080.0 | (50.3) |
| Getty Oil Co. | 179.0 | 159.6 | 182.7 | 172.7 | 691.6 | 856.9 | (19.3) |
| Union Oil Co. of California | 168.5 | 197.6 | 212.8 | 225.1 | 804.0 | 791.0 | 1.6 |
| Amerada Hess Corp. | (16.2) | 61.1 | 80.1 | 43.6 | 168.7 | 212.6 | (20.6) |
| Ashland, Inc. (a) | 47.6 | (11.6) | 69.1 | 75.8 | 180.9 | 90.0 | 101.0 |
| Kerr-McGee Corp. | 29.2 | 50.2 | 56.8 | 73.5 | 209.8 | 211.1 | (0.6) |
| Diamond-Shamrock Corp. | 64.6 | 31.9 | 42.3 | 46.2 | 185.1 | 121.3 | 52.6 |
| Murphy Oil Corp. | 33.8 | 41.7 | 43.9 | 39.0 | 158.0 | 163.0 | (2.4) |
| American Petrofina Co. | 15.9 | 10.9 | 12.7 | 54.4 | 14.8 | 74.1 | (26.6) |
| Crown Central Petroleum Corp. | (1.0) | (2.9) | 8.4 | 4.6 | 9.1 | 3.4 | 167.6 |
| Southland Corp. | 9.5 | 35.2 | 30.0 | 26.5 | 101.2 | 92.7 | 9.2 |

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(a) Fiscal ends 9/30. Quarters adjusted to reflect normal year.

GASOLINE
HEATING OIL
CRUDE OIL
NYMEX

Worth its weight...

When you deal in oil, you know what it's *really* worth. You know that its value is uncertain. Markets have been far too volatile, making profits all too precarious. And for most companies, that means high risk for a relatively low return.

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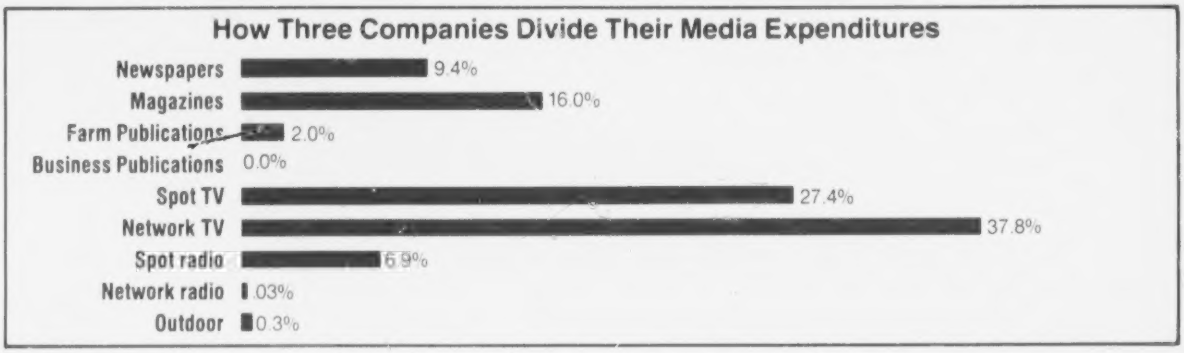
They know that NYMEX is the only actively traded international energy futures market that has an established base of diverse participants.

There's a wide variety of ways you can control risk with energy futures. We feel certain that the more you know about using them, the more likely you'll find the NYMEX Energy Complex worth its weight . . . in oil.

That's why we're offering a new brochure entitled "The Energy Futures Complex". To get your free copy, call Marketing Dept. at 212-938-2879, or write: Energy Futures, NYMEX, 4 World Trade Center, New York, N.Y. 10048.

**NEW YORK MERCANTILE EXCHANGE**
The Energy Exchange.

# How Oil Spends Its Ad Money



Source: Advertising Age and NPN estimates. Note table below for further detail and footnotes for special caveats.

## How Oil Companies Split Their Budgets (a)

(Add 000)

| | Mobil | | Exxon | | Shell | |
|---|---|---|---|---|---|---|
| | 1982 | 1981 | 1981 | 1978 | 1978 | 1977 |
| Newspapers | $ 8,046 | $ 8,534 | $1,529 | $1,958 | $ 751 | $ 544 |
| Gen. Magazines | 6,181 | 2,740 | 6,755 | 5,179 | 4,706 | 4,722 |
| Farm Publications | — | 1,454 | 255 | 188 | 2,006 | 2,225 |
| Business Publications | — | — | — | — | — | — |
| Spot TV | 20,498 | 33,642 | 6,245 | 6,804 | 3,491 | 2,657 |
| Network TV | 9,808 | 11,340 | 24,215 | 12,668 | 7,659 | 10,906 |
| Spot Radio | 3,695 | 2,598 | 2,931 | 4,022 | 947 | 338 |
| Network Radio | — | — | 298 | — | 36 | 635 |
| Outdoor | 40 | 88 | 255 | 422 | 2 | 44 |
| **Total (b)** | **$48,268** | **$60,395** | **$42,483** | **$31,261** | **$19,592** | **$22,224** |

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(a) Through the years, this table was based on data in Advertising Age's top 100 advertisers; however, neither Exxon or Shell have spent enough in recent years to be included in this group. These are the most recent numbers available. (b) Measured spending only; unmeasured total is much greater but strictly estimated.

## Network TV Spending

| Company | 1982 Spending (Add 000) | 1983 Spending (Add 000) | %Change |
|---|---|---|---|
| Phillips | $9,731 | $11,225 | + 15% |
| Pennzoil | 4,860 | 5,877 | + 21 |
| Texaco | 7,558 | 4,825 | − 36 |
| Quaker State | 5,056 | 4,587 | − 9 |
| Burmah (Castrol) | — | 3,819 | + Inf |
| Ashland | 1,700 | 3,021 | + 78 |
| Sun | 6,461 | 1,933 | − 70 |
| Shell | 9,511 | 1,697 | − 82 |

| Company | 1982 Spending (Add 000) | 1983 Spending (Add 000) | %Change |
|---|---|---|---|
| Witco (Kendall) | $ 609 | $1,045 | + 72% |
| Union Oil of Calif | 44 | 1,005 | + 2184 |
| Gulf | 414 | 736 | + 78 |
| Exxon | 4,213 | 727 | − 83 |
| Conoco | 3,404 | 631 | − 81 |
| Getty | 320 | 478 | + 49 |
| Standard Oil (Calif.) | 144 | 263 | + 83 |

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Source: Television Bureau of Advertising from BAR, April 1984.

## Spot TV Spending

| Company | 1982 Spending (Add 000) | 1983 Spending (Add 000) | %Change |
|---|---|---|---|
| Exxon | $10,804 | $15,371 | + 42% |
| Standard Oil (Ind.) | 12,562 | 11,977 | − 5 |
| Shell | 6,243 | 7,386 | + 18 |
| Mobil | 6,006 | 7,384 | + 23 |
| Standard Oil (Calif.) | 7,758 | 6,344 | − 18 |
| Union Oil of Calif. | 6,816 | 6,072 | − 11 |
| Getty | 4,621 | 5,259 | + 14 |
| Gulf | 6,756 | 3,766 | − 44 |
| Texaco | 3,243 | 3,448 | + 6 |
| Sun | 3,500 | 3,300 | − 6 |

| Company | 1982 Spending (Add 000) | 1983 Spending (Add 000) | %Change |
|---|---|---|---|
| Ashland | $2,796 | $3,037 | + 9% |
| Pennzoil | 2,623 | 2,849 | + 9 |
| Quaker State | 2,466 | 2,624 | + 6 |
| Burmah Oil | 3,048 | 2,241 | − 26 |
| Atlantic Richfield | 4,414 | 1,965 | − 55 |
| Petrofina S.A. | 985 | 1,008 | + 2 |
| Phillips | 986 | 802 | − 19 |
| Kerr-McGee | — | 726 | + Inf |
| Standard Oil (Ohio) | 2,092 | 663 | − 68 |
| Witco (Kendall) | 697 | 487 | − 30 |

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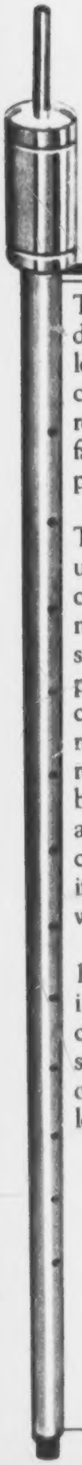
Source: Television Bureau of Advertising from BAR, April 1984.

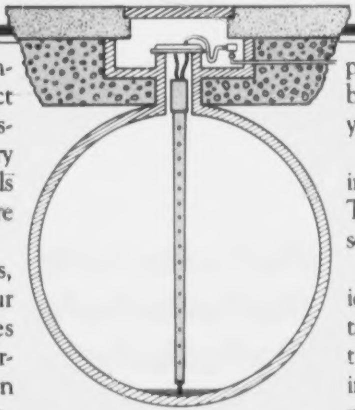
IMPORTANT INFORMATION
ABOUT UNDERGROUND TANK SECURITY

# FACT:

# TLS-150 CONTINUOUSLY MONITORS UNDERGROUND TANKS FOR FUEL INVENTORY STATUS... AND POSSIBLE LEAKS!



*DIGITAL SENSING PROBE IS ALL-ELECTRONIC— NO MOVING PARTS.*



*TLS-150 CONTINUOUSLY MONITORS TANK FOR FUEL LEVELS, TEMPERATURE AND WATER LEVEL— DAY AND NIGHT!*

TLS-150 tightens the controls on underground fuel inventory to detect losses from theft, leaks and meter miscalibration. Its on-demand inventory reports let you reconcile station totals far more accurately than ever before possible by sticking tanks!

During station operating hours, TLS continuously monitors your underground tanks and provides complete, accurate inventory information—in the office. Information such as fuel level and volume, fuel temperature, water level, station identification, and the date and time of each report. In addition, TLS automatically records deliveries to the tank, showing before and after inventories, temperature, time, date and net increase. Plus, a Sudden Loss Alarm contact can alert security or police, or trigger an on-site alarm if a theft or catastrophic leak occurs while the station is closed.

In its Leak Detect mode, TLS-150 continuously polls each tank during normal closed-time for small changes in volume—changes too small to detect through reconciliation or tank sticking! A pattern of steady losses over a period of time signals the possibility of a leak and lets you take action—before the damage becomes devastating to your business or the environment.

If fuel from another source does turn up in area water supplies or drainage systems, your TLS records offer evidence that your tanks are secure.

TLS-150's water detection capability identifies buildups due to condensation in the tank—or a *leak-in* in areas with a high water table. An optional telecommunications interface lets you poll stations from a central management location—especially important for unattended, card-authorized fueling sites. It also allows more effective planning of deliveries to multiple stations based on up-to-date inventory information.

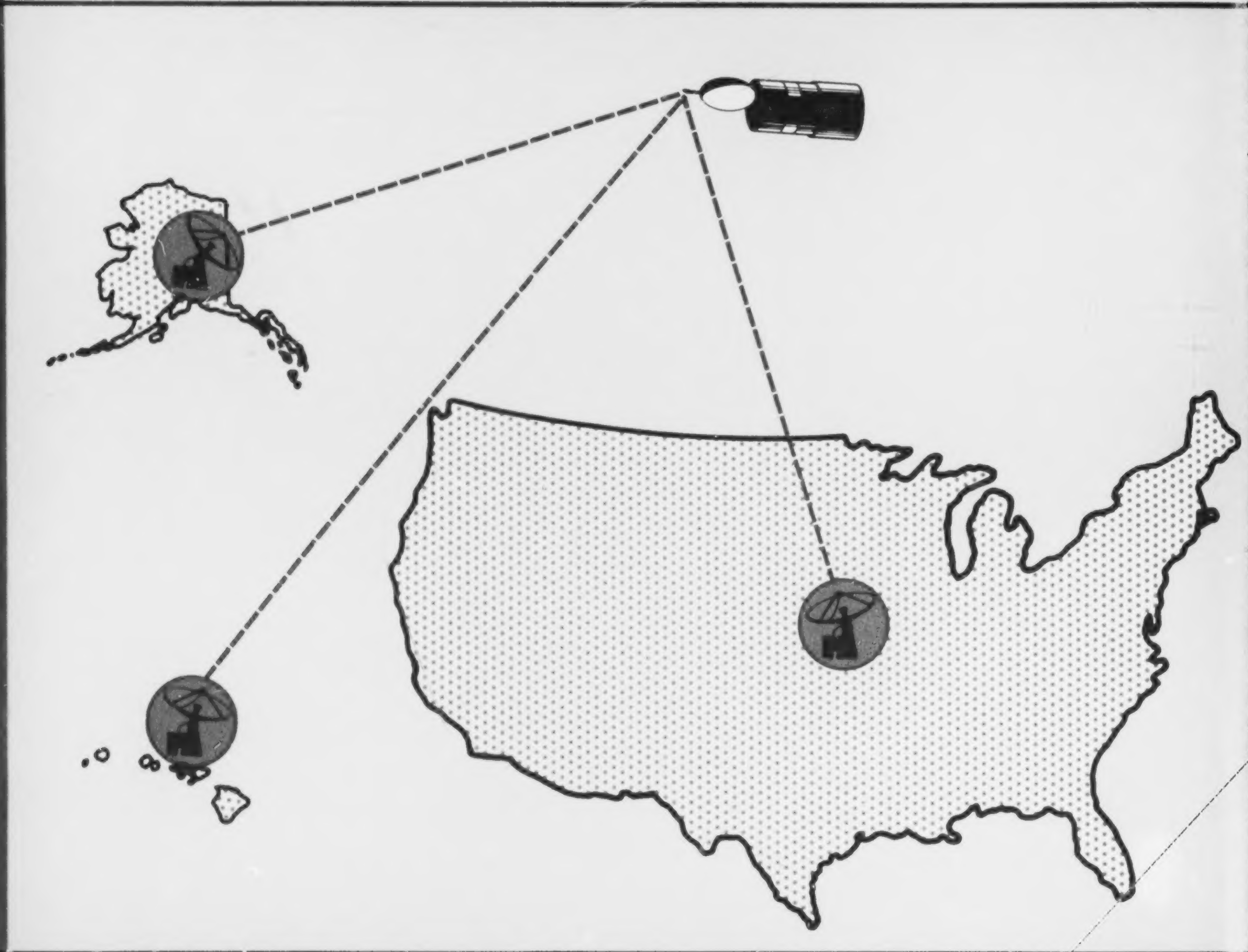
TLS-150 closes the loop in fuel inventory management. Its reports let you reconcile station totals to identify theft or delivery shortages, and make shift changes quickly. And since there is no need to stick tanks, your operator never has to leave the office or cash drawer unattended.

For complete information on TLS-150, contact your nearest Veeder-Root sales office. Veeder-Root Company, 70 Sargeant Street, Hartford, CT 06102, Tel. (203) 527-7201.

*COMPUTERIZED INVENTORY MONITOR ANALYZES AND DISPLAYS FUEL INVENTORY INFORMATION; PRINTS REPORTS.*

**VEEDER-ROOT**
A SUBSIDIARY OF
WESTERN PACIFIC INDUSTRIES

# THE ELECTRONIC RETAIL SUPPORT SYSTEMS NETWORK

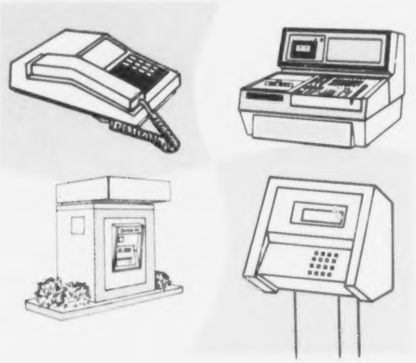


THE NETWORK FOR TODAY
AND FOR THE FUTURE

# JCPenney is one of the largest retailers in the world.

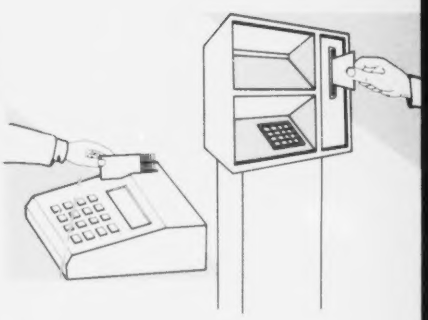
JCPenney is one of the largest retailers in the world. Our basic business is the same as yours — selling goods and services to the consumer. Over the past ten years JCPenney has developed a nationwide communications network with over 35,000 on-line terminals supporting our retail management systems.

JCPenney Systems Services, a wholly owned subsidiary, is a full service vendor offering your company access to the JCPenney network and retail systems expertise. This allows you to implement solutions to your business problems immediately — without the customary development time and costs.



The JCPenney network has the ability to interface with many types of equipment: dial-up terminals, electronic cash registers, island card readers — whatever type of equipment you select, JCPenney will accommodate your needs.

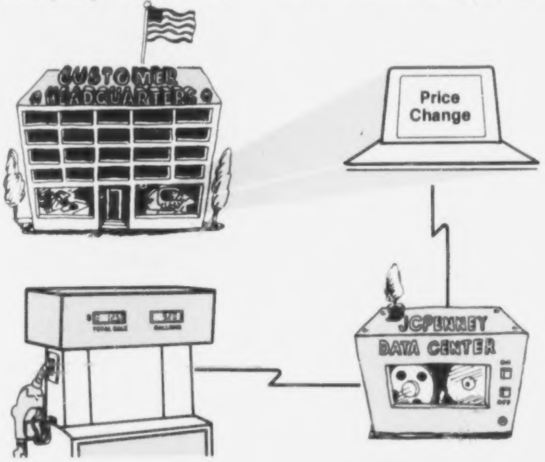
The JCPenney offering includes: authorization of proprietary credit cards, bank credit cards or debit cards; data collection; transaction logging; reconciliation; and delivery of data to the designated settlement system or data center. The offering is flexible and modular — allowing you to incorporate additional applications and additional locations if and when you need them. System redundancy, a complete help desk service and a sophisticatd technical staff provide the ability for JCPenney Systems Services to contractually guarantee our network's performance.



The basic service consists of a terminal installed at a customer location connected to a computer in a nearby JCPenney store via a leased line or dial-up link. Using a nearby JCPenney store as the network entry point makes the communication link the shortest and least expensive possible — providing the most cost effective electronic authorization and settlement services for you, the customer.

The benefits of the JCPenney approach to the Petroleum retailer are: reduction in float, reduction in bad debt, reduction in labor costs, improved customer service and convenience, increased market share, more marketing flexibility, improved intercompany communications — and it prepares you for the electronic payments system of the future.

Systems Services has positioned itself to be able to move rapidly into new technologies and new applications. We will always be ready with the right network and information processing systems to serve our petroleum customers' needs. Turning today's ideas into tomorrow's products is JCPenney Systems Services commitment to its present and future customers.



For further information contact:

**JCPenney Systems Services, Inc.**

1301 Avenue of the Americas • New York, NY 10019 • (212) 957-6211

# Current Automotive Registrations

| | Automobiles | | | Trucks and Buses | | All Motor Vehicles | | | Motorcycles |
|---|---|---|---|---|---|---|---|---|---|
| State | Registered 1982 | Estimated 1983 | % Chng. | Estimated 1983 | % Chng. | Registered 1982 | Estimated 1983 | % Chng. | Estimated 1983 |
| Alabama | 2,194,794 | 2,197,000 | 0.1 | 881,000 | 4.3 | 3,039,460 | 3,078,000 | 1.3 | 69,000 |
| Alaska | 199,956 | 214,000 | 7.0 | 126,000 | 6.2 | 318,550 | 340,000 | 6.7 | 11,000 |
| Arizona | 1,882,896 | 1,648,000 | 4.1 | 660,000 | 4.3 | 2,215,549 | 2,308,000 | 4.2 | 106,000 |
| Arkansas | 968,330 | 955,000 | -1.1 | 511,000 | -1.0 | 1,481,366 | 1,466,000 | -1.0 | 24,000 |
| California | 13,420,945 | 14,016,000 | 4.4 | 3,782,000 | 2.0 | 17,130,403 | 17,798,000 | 2.9 | 714,000 |
| Colorado | 1,843,399 | 1,847,000 | 0.2 | 669,000 | 1.6 | 2,501,727 | 2,516,000 | 0.6 | 118,000 |
| Connecticut | 2,099,377 | 2,119,000 | 0.9 | 161,000 | 1.5 | 2,257,975 | 2,280,000 | 1.0 | 77,000 |
| Delaware | 333,803 | 339,000 | 1.6 | 84,000 | 3.8 | 414,764 | 423,000 | 2.0 | 12,000 |
| Dist. of Col. | 212,762 | 211,000 | -0.8 | 18,000 | -3.3 | 231,368 | 229,000 | -1.0 | 6,000 |
| Florida | 6,753,616 | 7,299,000 | 8.1 | 1,655,000 | 4.7 | 8,334,594 | 8,954,000 | 7.4 | 233,000 |
| Georgia | 2,995,234 | 3,031,000 | 1.2 | 941,000 | 2.2 | 3,915,819 | 3,972,000 | 1.4 | 117,000 |
| Hawaii | 528,125 | 532,000 | 0.7 | 61,000 | 4.8 | 586,306 | 593,000 | 1.1 | 7,000 |
| Idaho | 529,194 | 530,000 | 0.2 | 360,000 | 4.8 | 872,636 | 890,000 | 2.0 | 52,000 |
| Illinois | 5,855,187 | 5,840,000 | -0.3 | 1,416,000 | 2.1 | 7,241,982 | 7,256,000 | 0.2 | 293,000 |
| Indiana | 2,874,145 | 2,873,000 | -0.0 | 1,009,000 | -0.0 | 3,883,617 | 3,882,000 | -0.0 | 157,000 |
| Iowa | 1,667,984 | 1,664,000 | -0.2 | 692,000 | 2.1 | 2,345,805 | 2,356,000 | 0.4 | 239,000 |
| Kansas | 1,392,762 | 1,398,000 | 0.4 | 699,000 | 4.6 | 2,061,174 | 2,097,000 | 1.7 | 130,000 |
| Kentucky | 1,809,711 | 1,817,000 | 0.4 | 816,000 | 1.3 | 2,615,341 | 2,633,000 | 0.7 | 64,000 |
| Louisiana | 2,010,151 | 2,036,000 | 1.3 | 782,000 | -1.0 | 2,800,427 | 2,818,000 | 0.6 | 69,000 |
| Maine | 541,222 | 568,000 | 4.9 | 202,000 | 0.2 | 742,857 | 770,000 | 3.7 | 48,000 |
| Maryland | 2,421,184 | 2,453,000 | 1.3 | 480,000 | 1.6 | 2,893,425 | 2,933,000 | 1.4 | 75,000 |
| Massachusetts | 3,296,631 | 3,298,000 | 0.0 | 451,000 | -0.4 | 3,749,568 | 3,749,000 | -0.0 | 99,000 |
| Michigan | 5,005,544 | 5,007,000 | 0.0 | 1,331,000 | 6.9 | 6,250,289 | 6,338,000 | 1.4 | 223,000 |
| Minnesota | 2,338,304 | 2,347,000 | 0.4 | 980,000 | 4.2 | 3,278,425 | 3,327,000 | 1.5 | 173,000 |
| Mississippi | 1,214,950 | 1,230,000 | 1.2 | 380,000 | 0.5 | 1,593,021 | 1,610,000 | 1.1 | 29,000 |
| Missouri | 2,540,190 | 2,565,000 | 1.0 | 874,000 | 0.3 | 3,411,505 | 3,439,000 | 0.8 | 98,000 |
| Montana | 451,097 | 477,000 | 5.7 | 306,000 | -0.3 | 757,924 | 783,000 | 3.3 | 47,000 |
| Nebraska | 804,626 | 814,000 | 1.2 | 415,000 | 1.1 | 1,214,991 | 1,229,000 | 1.2 | 45,000 |
| Nevada | 513..450 | 519,000 | 1.1 | 200,000 | 1.8 | 709,966 | 719,000 | 1.3 | 24,000 |
| New Hampshire | 660,588 | 666,000 | 0.8 | 115,000 | 1.8 | 773,564 | 781,000 | 1.0 | 59,000 |
| New Jersey | 4,389,581 | 4,402,000 | 0.3 | 538,000 | 1.9 | 4,917,379 | 4,940,000 | 0.5 | 104,000 |
| New Mexico | 779,944 | 806,000 | 3.3 | 428,000 | 3.6 | 1,193,161 | 1,234,000 | 3.4 | 63,000 |
| New York | 7,201,767 | 7,180,000 | -0.3 | 1,097,000 | 6.2 | 8,234,857 | 8,277,000 | 0.5 | 192,000 |
| North Carolina | 3,445,754 | 3,468,000 | 0.6 | 1,120,000 | -1.5 | 4,583,305 | 4,588,000 | 0.1 | 117,000 |
| North Dakota | 380,683 | 386,000 | 1.4 | 279,000 | 2.4 | 653,026 | 665,000 | 1.8 | 32,000 |
| Ohio | 6,324,670 | 6,305,000 | -0.3 | 1,291,000 | -1.5 | 7,635,860 | 7,596,000 | -0.5 | 282,000 |
| Oklahoma | 1,787,616 | 1,811,000 | 1.3 | 1,029,000 | 3.7 | 2,779,800 | 2,840,000 | 2.2 | 134,000 |
| Oregon | 1,467,482 | 1,463,000 | -0.3 | 622,000 | 2.4 | 2,074,696 | 2,085,000 | 0.5 | 89,000 |
| Pennsylvania | 5,617,934 | 5,613,000 | -0.1 | 1,123,000 | 1.5 | 6,724,739 | 6,736,000 | 0.2 | 233,000 |
| Rhode Island | 507,284 | 505,000 | -0.5 | 80,000 | 1.6 | 586,060 | 585,000 | -0.2 | 29,000 |
| South Carolina | 1,518,689 | 1,594,000 | 5.0 | 451,000 | -1.1 | 1,974,742 | 2,045,000 | 3.6 | 35,000 |
| South Dakota | 376,735 | 384,000 | 1.9 | 243,000 | 1.8 | 615,386 | 627,000 | 1.9 | 39,000 |
| Tennessee | 2,765,974 | 2,746,000 | -0.7 | 607,000 | 1.3 | 3,381,216 | 3,353,000 | -0.8 | 83,000 |
| Texas | 7,992,738 | 8,110,000 | 1.5 | 3,517,000 | 3.6 | 11,387,833 | 11,627,000 | 2.1 | 338,000 |
| Utah | 712,027 | 723,000 | 1.5 | 325,000 | -0.4 | 1,038,411 | 1,048,000 | 0.9 | 66,000 |
| Vermont | 269,966 | 271,000 | 0.4 | 82,000 | 1.3 | 350,881 | 353,000 | 0.6 | 22,000 |
| Virginia | 3,153,409 | 3,144,000 | -0.3 | 545,000 | -1.3 | 3,705,347 | 3,689,000 | -0.4 | 79,000 |
| Washington | 2,296,429 | 2,286,000 | -0.5 | 931,000 | -1.0 | 3,236,854 | 3,217,000 | -0.6 | 136,000 |
| West Virginia | 792,707 | 802,000 | 1.2 | 340,000 | -2.6 | 1,141,936 | 1,142,000 | 0.0 | 56,000 |
| Wisconsin | 2,560,470 | 2,570,000 | 0.4 | 633,000 | 5.2 | 3,162,337 | 3,203,000 | 1.3 | 210,000 |
| Wyoming | 298,847 | 303,000 | 1.4 | 219,000 | 4.9 | 507,601 | 522,000 | 2.8 | 22,000 |
| Total | 123,897,863 | 125,382,000 | 1.4 | 36,557,000 | 2.1 | 159,509,075 | 101,939,000 | 1.5 | 5,779,000 |

Source: Federal Highway Administration, Table 5582-2, October 1983.

# Estimated Licensed Drivers, By Sex and States—1982 and 1983

(Add 000)

| | 1982 (Actual) | | | | 1983 (Estimated) | | |
|---|---|---|---|---|---|---|---|
| State | Male | Female | Total | % Male Drivers | Male | Female | Total |
| Alabama | 1,204 | 1,112 | 2,316 | 51.98 | 1,211 | 1,119 | 2,330 |
| Alaska | 183 | 137 | 320 | 57.15 | 196 | 147 | 343 |
| Arizona | 1,129 | 957 | 2,086 | 54.12 | 1,158 | 982 | 2,140 |
| Arkansas | 823 | 768 | 1,591 | 51.73 | 824 | 770 | 1,594 |
| California | 8,643 | 7,656 | 16,299 | 53.02 | 8,831 | 7,825 | 16,656 |
| Colorado | 1,138 | 1,044 | 2,182 | 52.15 | 1,141 | 1,048 | 2,189 |
| Connecticut | 1,158 | 1,077 | 2,235 | 51.83 | 1,167 | 1,085 | 2,252 |
| Delaware | 223 | 210 | 433 | 51.42 | 224 | 212 | 436 |
| Dist. of Col. | 201 | 184 | 385 | 52.10 | 199 | 184 | 383 |
| Florida | 4,142 | 3,837 | 7,979 | 51.92 | 4,285 | 3,970 | 8,255 |
| Georgia | 1,867 | 1,738 | 3,605 | 51.78 | 1,892 | 1,762 | 3,654 |
| Hawaii | 311 | 250 | 561 | 55.46 | 315 | 254 | 569 |
| Idaho | 348 | 316 | 664 | 52.43 | 351 | 320 | 671 |
| Illinois | 3,652 | 3,313 | 6,965 | 52.43 | 3,654 | 3,316 | 6,970 |
| Indiana | 1,650 | 1,695 | 3,345 | 49.33 | 1,652 | 1,697 | 3,349 |
| Iowa | 983 | 944 | 1,927 | 51.00 | 985 | 947 | 1,932 |
| Kansas | 862 | 832 | 1,694 | 50.92 | 872 | 842 | 1,714 |
| Kentucky | 1,146 | 995 | 2,141 | 53.52 | 1,155 | 1,004 | 2,159 |
| Louisiana | 1,356 | 1,184 | 2,540 | 53.39 | 1,380 | 1,206 | 2,586 |
| Maine | 394 | 364 | 758 | 52.00 | 408 | 377 | 785 |
| Maryland | 1,423 | 1,318 | 2,741 | 51.91 | 1,446 | 1,340 | 2,786 |
| Massachusetts | 1,887 | 1,755 | 3,642 | 51.81 | 1,894 | 1,763 | 3,657 |
| Michigan | 3,336 | 3,054 | 6,390 | 52.20 | 3,374 | 3,091 | 6,465 |
| Minnesota | 1,246 | 1,151 | 2,397 | 51.97 | 1,254 | 1,160 | 2,414 |
| Mississippi | 931 | 803 | 1,734 | 53.70 | 937 | 808 | 1,745 |
| Missouri | 1,702 | 1,596 | 3,298 | 51.60 | 1,721 | 1,615 | 3,336 |
| Montana | 270 | 222 | 492 | 54.82 | 271 | 225 | 496 |
| Nebraska | 561 | 524 | 1,085 | 51.71 | 565 | 529 | 1,094 |
| Nevada | 351 | 304 | 655 | 53.54 | 353 | 308 | 661 |
| New Hampshire | 352 | 325 | 677 | 52.03 | 356 | 330 | 686 |
| New Jersey | 2,821 | 2,516 | 5,337 | 52.86 | 2,846 | 2,539 | 5,385 |
| New Mexico | 490 | 453 | 943 | 52.00 | 501 | 464 | 965 |
| New York | 4,788 | 4,205 | 8,993 | 53.24 | 4,803 | 4,219 | 9,022 |
| North Carolina | 2,017 | 1,886 | 3,903 | 51.67 | 2,039 | 1,909 | 3,948 |
| North Dakota | 224 | 204 | 428 | 52.35 | 227 | 207 | 434 |
| Ohio | 3,990 | 3,678 | 7,668 | 52.03 | 3,990 | 3,680 | 7,670 |
| Oklahoma | 1,034 | 1,005 | 2,039 | 50.73 | 1,051 | 1,022 | 2,073 |
| Oregon | 1,001 | 892 | 1,893 | 52.88 | 1,004 | 896 | 1,900 |
| Pennsylvania | 3,878 | 3,474 | 7,352 | 52.75 | 3,880 | 3,476 | 7,356 |
| Rhode Island | 309 | 291 | 600 | 51.51 | 310 | 293 | 603 |
| South Carolina | 990 | 970 | 1,960 | 50.52 | 1,003 | 984 | 1,987 |
| South Dakota | 253 | 233 | 486 | 52.13 | 258 | 237 | 495 |
| Tennessee | 1,498 | 1,404 | 2,902 | 51.63 | 1,508 | 1,413 | 2,921 |
| Texas | 5,360 | 4,794 | 10,154 | 52.78 | 5,461 | 4,887 | 10,348 |
| Utah | 453 | 460 | 913 | 49.63 | 457 | 465 | 922 |
| Vermont | 187 | 168 | 355 | 52.79 | 187 | 169 | 356 |
| Virginia | 1,835 | 1,791 | 3,626 | 50.61 | 1,878 | 1,833 | 3,711 |
| Washington | 1,456 | 1,318 | 2,774 | 52.48 | 1,452 | 1,315 | 2,767 |
| West Virginia | 744 | 667 | 1,411 | 52.71 | 746 | 670 | 1,416 |
| Wisconsin | 1,576 | 1,460 | 3,036 | 51.91 | 1,585 | 1,469 | 3,054 |
| Wyoming | 219 | 179 | 398 | 55.08 | 219 | 179 | 398 |
| Total | 78,596 | 71,714 | 150,310 | 52.29 | 79,476 | 72,562 | 152,038 |
| Percent Change From Prior Year | 0.9 | 3.7 | 2.2 | — | 1.1 | 1.2 | 1.1 |

Source: Federal Highway Administration, Table SS82-5, October 1983

# Automotive Trends

## Fuel and Oil Consumption

| Year | Avg. annual miles per car (a) | Avg. gal. gasoline (a) | Avg. miles per gal. (a) | M/O ratio (b) | Avg. qts. motor oil |
|---|---|---|---|---|---|
| **1983** | **9,150** | **550** | **16.8** | — | — |
| 1982 | 9,167 | 561 | 16.3 | — | — |
| 1981 | 9,002 | 579 | 15.5 | .28 | 6.8 |
| 1980 | 9,135 | 603 | 15.2 | .25 | 6.5 |
| 1979 | 9,245 | 664 | 14.3 | .25 | 7.3 |
| 1978 | 10,046 | 715 | 14.1 | .28 | 7.6 |
| 1977 | 9,839 | 706 | 13.9 | .28 | 7.9 |
| 1976 | 9,763 | 711 | 13.7 | .28 | 8.0 |
| 1975 | 9,364 | 712 | 13.5 | .31 | 9.5 |
| 1974 | 9,448 | 704 | 13.4 | .31 | 9.5 |
| 1973 | 9,992 | 763 | 13.1 | .31 | 9.5 |
| 1972 | 10,184 | 755 | 13.5 | .33 | 10.0 |
| 1971 | 10,121 | 746 | 13.6 | .36 | 10.7 |
| 1970 | 9,978 | 735 | 13.6 | .41 | 12.0 |
| 1965 | 9,387 | 667 | 14.1 | .63 | 16.8 |

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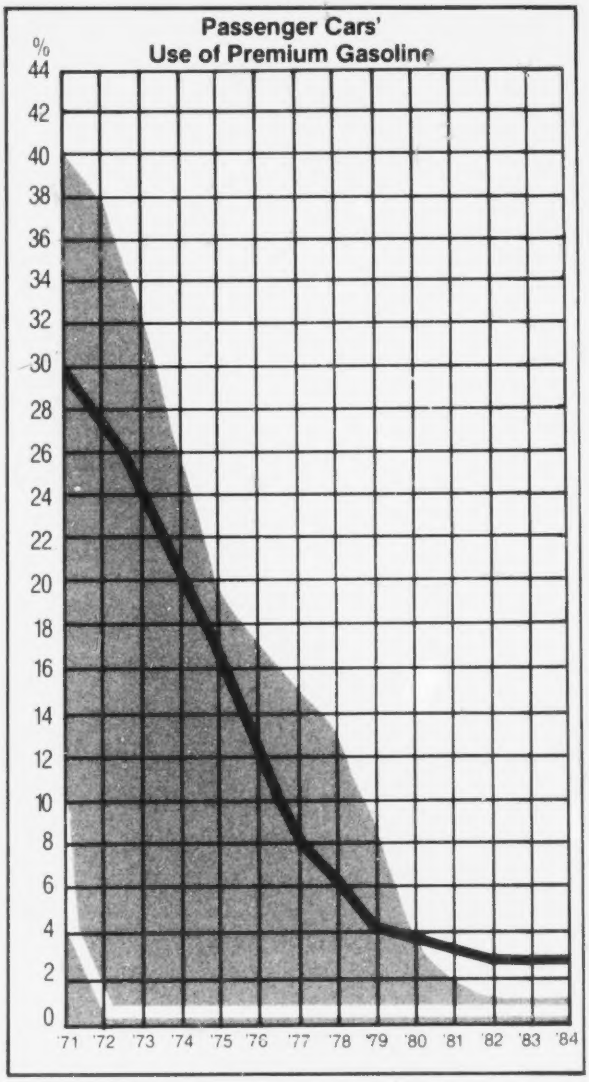
(a) 1965-1982 U.S. Department of Transportation; 1983 NPN estimate.
(b) Motor-oil ratio; the number of gal. of oil sold per 100 gal. of gasoline.

## U.S. Passenger-Car Compression Ratios

| Year | Weighted average (a) | Highest (b) | Lowest (b) |
|---|---|---|---|
| **1984** | **8.5** | **9.5** | **7.5** |
| 1983 | 8.5 | 9.5 | 7.5 |
| 1982 | 8.5 | 9.5 | 7.5 |
| 1981 | 8.3 | 9.0 | 7.5 |
| 1980 | 8.3 | 9.0 | 7.5 |
| 1979 | 8.3 | 9.0 | 7.5 |
| 1978 | 8.2 | 9.0 | 7.5 |
| 1977 | 8.2 | 9.0 | 7.5 |
| 1976 | 8.2 | 9.0 | 7.6 |
| 1975 | 8.2 | 9.0 | 7.6 |
| 1974 | 8.2 | 9.0 | 7.6 |
| 1973 | 8.3 | 9.0 | 7.6 |
| 1972 | 8.4 | 9.0 | 8.0 |
| 1971 | 8.7 | 10.7 | 8.0 |
| 1970 | 9.4 | 11.0 | 8.3 |
| 1965 | 9.4 | 10.8 | 8.0 |

---

(a) Weighted average is based on production of automobiles of that model year. Production statistics have been used for all years except 1983 which are estimated.
(b) Highest and lowest compression ratios of standard (not optional) engines, excludes diesels.
Source: 1965-1974, Automotive-industry sources; 1975-84 NPN estimates.



■ Premium Recommended for cars on Road.
▨ Premium Gasoline Sales, U.S.
□ Premium Recommended for Model Year.

## Vehicle Ownership by Households And Licensed Drivers

| Licensed Drivers | Motor Vehicle Ownership | | | | | | Distribution by Households (a) |
|---|---|---|---|---|---|---|---|
| | One | Two | Three | Four + | Sub-Total | None | |
| One | 65.6% | 16.7% | 12.4% | 10.3% | 35.8% | 21.1% | 33.6% |
| Two | 29.8 | 73.1 | 47.5 | 36.1 | 50.0 | 3.1 | 42.6 |
| Three | 1.8 | 8.5 | 31.0 | 28.2 | 9.7 | 0.2 | 8.2 |
| Four + | 0.2 | 1.1 | 7.9 | 19.4 | 2.7 | 0.1 | 2.3 |
| Five + | — | 0.1 | 1.0 | 5.9 | 0.5 | — | 0.5 |
| All Drivers | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Distribution (a) by Households | 34.7% | 34.3% | 10.6% | 5.0% | 84.6% | 15.4% | 100.0% |

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(a) Based on 75.4-million households. Data compiled by Federal Highway Administration in the National Personal Transportation Study.
Source: FHA Highway Statistics 1979, Table NPTS-8, September 1980.

## Passenger-Car Use of Premium

| Year | Premium Recommended | | Premium Sales |
|---|---|---|---|
| | Model Year | Cars on Road (a) | |
| **1984** | **0** | **3.0%** | **0.7%** |
| 1983 | 0 | 3.0 | 0.8 |
| 1982 | 0 | 3.0 | 0.9 |
| 1981 | 0 | 3.0 | 1.4 |
| 1980 | 0 | 3.7 | 4.7 |
| 1979 | 0 | 4.5 | 8.3 |
| 1978 | 0 | 6.5 | 12.6 |
| 1977 | 0 | 8.9 | 14.8 |
| 1976 | 0 | 11.9 | 17.1 |
| 1975 | 0 | 15.9 | 19.0 |
| 1974 | 0 | 19.7 | 24.5 |
| 1972 | 0 | 27.1 | 38.1 |
| 1970 | 32 | 32.3 | 42.6 |

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(a) Weighted average based on all car registrations.
Source: Premium sales 1964-1975, Ethyl Corp. 1976-1984 NPN estimates.

# 1982 Relationships by Population and Drivers

| State | Resident Population (1,000) | Licensed Drivers per 1,000 Resident Population | Registered Motor Vehicles per 1,000 Resident Population | Gal. of Fuel per Vehicle | Miles per Gal. | Annual Miles per Vehicle | Vehicle Miles per Licensed Driver |
|---|---|---|---|---|---|---|---|
| Alabama | 3,943 | 587 | 770 | 685 | 13.70 | 9,382 | 12,311 |
| Alaska | 438 | 732 | 727 | 735 | 15.81 | 11,543 | 11,543 |
| Arizona | 2,860 | 729 | 775 | 676 | 13.17 | 8,905 | 9,458 |
| Arkansas | 2,291 | 695 | 647 | 895 | 12.55 | 11,226 | 10,452 |
| California | 24,724 | 659 | 693 | 678 | 14.64 | 9,924 | 10,430 |
| Colorado | 3,045 | 717 | 821 | 653 | 14.56 | 9,508 | 10,899 |
| Connecticut | 3,153 | 709 | 716 | 609 | 14.64 | 8,919 | 9,010 |
| Delaware | 602 | 720 | 689 | 761 | 14.55 | 11,069 | 10,596 |
| Dist. of Col. | 631 | 610 | 366 | 805 | 18.16 | 14,609 | 8,777 |
| Florida | 10,416 | 766 | 800 | 638 | 14.95 | 9,538 | 9,964 |
| Georgia | 5,639 | 639 | 694 | 835 | 14.91 | 12,445 | 13,517 |
| Hawaii | 994 | 565 | 590 | 542 | 19.02 | 10,315 | 10,774 |
| Idaho | 965 | 687 | 904 | 556 | 16.19 | 9,004 | 11,843 |
| Illinois | 11,448 | 608 | 632 | 674 | 13.48 | 9,091 | 9,453 |
| Indiana | 5,471 | 611 | 710 | 755 | 13.37 | 10,094 | 11,719 |
| Iowa | 2,905 | 663 | 807 | 666 | 12.38 | 8,245 | 10,038 |
| Kansas | 2,408 | 703 | 856 | 676 | 12.66 | 8,567 | 10,425 |
| Kentucky | 3,667 | 584 | 713 | 748 | 13.10 | 9,799 | 11,970 |
| Louisiana | 4,362 | 582 | 642 | 856 | 11.22 | 9,606 | 10,592 |
| Maine | 1,133 | 668 | 656 | 751 | 13.72 | 10,297 | 10,101 |
| Maryland | 4,265 | 643 | 678 | 708 | 14.11 | 9,995 | 10,550 |
| Massachusetts | 5,781 | 630 | 649 | 630 | 15.51 | 9,779 | 10,070 |
| Michigan | 9,109 | 702 | 686 | 639 | 15.33 | 9,792 | 9,577 |
| Minnesota | 4,133 | 580 | 793 | 617 | 14.42 | 8,899 | 12,171 |
| Mississippi | 2,551 | 680 | 624 | 841 | 12.80 | 10,763 | 9,887 |
| Missouri | 4,951 | 666 | 689 | 808 | 12.70 | 10,260 | 10,615 |
| Montana | 801 | 614 | 946 | 588 | 12.89 | 8,799 | 13,558 |
| Nebraska | 1,586 | 684 | 766 | 732 | 12.86 | 9,412 | 10,545 |
| Nevada | 881 | 743 | 806 | 771 | 11.72 | 9,033 | 9,796 |
| New Hampshire | 951 | 712 | 813 | 535 | 16.83 | 9,012 | 10,290 |
| New Jersey | 7,438 | 718 | 661 | 700 | 15.05 | 10,534 | 9,705 |
| New Mexico | 1,359 | 694 | 878 | 728 | 13.67 | 9,932 | 12,567 |
| New York | 17,659 | 509 | 466 | 695 | 14.07 | 9,774 | 8,950 |
| North Carolina | 6,019 | 648 | 761 | 685 | 13.73 | 9,404 | 11,042 |
| North Dakota | 670 | 639 | 975 | 651 | 12.35 | 8,043 | 12,271 |
| Ohio | 10,791 | 711 | 708 | 672 | 13.98 | 9,397 | 9,356 |
| Oklahoma | 3,177 | 642 | 875 | 777 | 13.89 | 10,796 | 14,716 |
| Oregon | 2,649 | 715 | 783 | 674 | 13.87 | 9,343 | 10,237 |
| Pennsylvania | 11,865 | 620 | 567 | 729 | 14.54 | 10,605 | 9,701 |
| Rhode Island | 958 | 626 | 612 | 641 | 15.72 | 10,081 | 9,852 |
| South Carolina | 3,203 | 612 | 617 | 870 | 14.10 | 12,266 | 12,362 |
| South Dakota | 691 | 704 | 891 | 673 | 15.35 | 10,337 | 13,077 |
| Tennessee | 4,651 | 624 | 727 | 791 | 13.00 | 10,290 | 11,988 |
| Texas | 15,280 | 665 | 745 | 829 | 13.27 | 10,996 | 12,331 |
| Utah | 1,554 | 588 | 668 | 738 | 14.25 | 10,521 | 11,956 |
| Vermont | 516 | 688 | 680 | 698 | 16.31 | 11,300 | 11,246 |
| Virginia | 5,491 | 660 | 675 | 757 | 14.77 | 11,181 | 11,428 |
| Washington | 4,245 | 654 | 763 | 622 | 15.53 | 9,657 | 11,267 |
| West Virginia | 1,948 | 724 | 586 | 783 | 12.22 | 9,573 | 7,748 |
| Wisconsin | 4,765 | 637 | 664 | 691 | 14.97 | 10,370 | 10,800 |
| Wyoming | 502 | 792 | 1,011 | 847 | 12.28 | 10,404 | 13,276 |
| Total | 231,534 | 649 | 689 | 711 | 14.05 | 9,984 | 10,595 |

Source: Federal Highway Administration, Table 5582-16, October 1983.

# Brand Names of Gasoline and Motor Oil

| | Gasoline | Motor Oil |
|---|---|---|
| **Agway Petroleum Corp.** | Agway (r,ur)<br>Power Champ (r,ur,up) | Agway |
| **Ada Resources** | Phillips 66 (r,ur,up) | M&M (Phillips 66)<br>Unique<br>HDS<br>HDS + 1<br>Super HDS II<br>Trop Artic |
| **American Petrofina** | Fina Gasoline (r)<br>Fina Unleaded (ur)<br>Fina Premium (up) | Fina Shield<br>Fina HD Premium<br>Fina Ultra Supreme (10W40)<br>Fina 2001 (5W30) |
| **Amoco Oil Co.** | Amoco (r)<br>Amoco Lead Free (ur)<br>Amoco Premium Lead Free (up) | Amoco 100<br>Amoco 200<br>Amoco 300<br>Amoco M-V<br>Amoco LDO<br>Amoco Ultimate |
| **Arkla Chemical Corp.** | Arkla (r,ur,up) | Arkla Blue Chip<br>Arkla Royal Blue<br>Arkla Multi-Range 10W40<br>Arkla Super Express 15W40 |
| **Armour Oil Co.** | Gas-N-Save<br>Arco<br>Union 76 | |
| **Ashland Petroleum Co.** | Ashland (r,p,ur,up) | |
| **Atlantic Richfield Co.** | ARCO (r)<br>ARCOClear (ur)<br>ARCO Unleaded Supreme (up) | ARCO<br>ARCO Fleet HD<br>ARCO Fleet S3 Plus<br>ARCO XHD<br>ARCO Supreme<br>ARCO G.T.<br>ARCO Graphite |
| **The Augsbury Organization** | Chevron (r,ur)<br>Mobil (r,ur)<br>Augsbury<br>Getty | Chevron<br>Mobil<br>Augsbury |
| **Automatic Comfort Corp.** | | Citgo Regular<br>Citgo Premium<br>Sun 10W40<br>Citgo 10W40<br>Havoline Supreme |
| **Avalon Petroleum** | Avalon (r,ur,up, gasohol) | Citgo<br>Kendall<br>Chevron |
| **Beacon Oil Co.** | Beacon (r,p,sp,ur,up,usp)<br>Apollo<br>Ultra | Sequoia |
| **Best Oil Co.** | Gulf<br>Mobil<br>Amoco | |
| **Brennan Petroleum** | Brenco (r,p,sp,ur,up,usp) | |
| **Browning Oil Co.** | Shell<br>Rally | Shell |
| **Burmah Castrol** | | Castrol (various) |
| **By-Lo Oil Co.** | By-Lo (r,ur,up,d) | Amoco |
| **C.S.C. Oil Co.** | C.S.C. (r,p,sp,ur,up) | |
| **Campbell Oil Co. (OH)** | Sunoco (r,p,ur,up)<br>Union (r,p,ur,up)<br>Shell (r,p,ur,up) | Sunoco<br>Shell<br>Union<br>Citgo<br>Quaker State<br>Pennzoil<br>Kendall<br>Valvoline |
| **Cannon Oil Corp.** | Cannon (r,ur,up,d) | |
| **Cardon Oil Co.** | Cardon (r,ur,up,d) | Valvoline<br>Pennzoil<br>Mobil<br>Chevron<br>Shell<br>Rev |
| **Center Independent Oil Co.** | Ashland (r,ur,up)<br>BP<br>Mobil<br>Boron<br>ARCO<br>Gulf | Valvoline<br>Quaker State<br>Wolf's Head<br>Pennzoil |
| **Certified Oil Co.** | Certified | Certified |
| **Chapman Inc.** | Texaco (r,ur,up) | URSA<br>Havoline |
| **Chevron U.S.A.** | Chevron (r,ur,up, u-w ethanol)<br>Calco (r,ur,up, u-w ethanol) | Chevron Delo 100<br>Chevron Delo 200<br>Chevron RPM Delo Motor Oil<br>Chevron Special<br>Chevron Delo 300<br>Chevron Delo 400<br>Chevron Custom<br>Chevron Delo 300 15W40 |
| **Cibro Petroleum** | Cibro (r,u,up,d) | Cibro Prima I, Grade-10<br>Cibro Prima I, Grade-20<br>Cibro Prima I, Grade 10W40 |
| **CITGO Petroleum Corp.** | CITGO (r,ur,up,u-plus) | CITGO Non-Detergent<br>CITGO C300 HD Detergent<br>CITGO C500<br>CITGO All Season 10W30<br>CITGO All Season 10W40 |
| **Colonial Oil Industries** | Eagle (r)<br>Colonial (ur,up) | |
| **Comet Oil Co.** | Comet (r,ur,d)<br>Amoco (up) | Quaker State |
| **Conoco** | Conoco (r,ur,up) | Par<br>Tracon<br>Tracon Supreme<br>Fleet<br>Fleet Supreme<br>Super<br>New Generation All Season |
| **Consumers Gasoline Stations** | Consumers (r,p,sp,o,ur,up,usp)<br>Scot (r,p,sp,o,ur,up,usp) | |
| **Cook & Cooley** | Texaco (r,p,ur) | Texaco<br>Havoline<br>Havoline Supreme |
| **Crown Central Petroleum Corp.** | Crown | Crown |
| **Crystal Flash** | Crystal Flash (r,gasohol) | Citgo |
| **Crystal USA Oil** | Crystal (r,p,sp,ur,up,usp) | Saxon 30W<br>Saxon 10W40<br>Saxon A.T.F. |
| **Curt's Oil Co.** | Curt's | Curt's |
| **K.E. David Ltd.** | Citgo (r,ur) | ARCO<br>Citgo |
| **Davis Howland Oil Corp.** | Davis Howland | DSL Regular<br>DSL Super Premium<br>DSL Super Premium Delux<br>DSL Universal Motor Oil<br>DSL Universal Motor Oil Delux<br>DSL XX HD Motor Oil |
| **DeBlois Oil Co.** | Texaco (r,ur,up)<br>Sunoco (r,ur,up) | Texaco<br>Havoline<br>Havoline Super Premium |
| **Derby Refining Co.** | Derby (r)<br>Star Kleen (ur)<br>Unleaded Plus (up) | Triumph<br>Super Flex<br>Ultra-Life<br>Premium E2 |
| **Desert Oil Co.** | Chevron (r,p,sp,ur,up,usp)<br>Sinclair (r,p,sp,ur,up,sp) | Gulf<br>Chevron |

**KEY**

**Gasoline**
**(r) Regular**
**(u) Unleaded**
**(p) Premium**
**(sp) Super Premium**
**(o) Other**
**(d) Diesel**

Source: NPN Questionnaires

| Gasoline | Motor Oil |
|---|---|
| **Diamond Shamrock** | |
| Diamond Shamrock Trailmaster (r)<br>Diamond Shamrock Cloud Master (ur)<br>Diamond Shamrock Premium (up)<br>Fill-em-Fast (r,p,ur,up) | Equa Flow<br>Triple Action<br>Triple Action S-3<br>LPG-NG<br>Genuine<br>Liberty |
| **East Coast Oil Corp.** | |
| East Coast | |
| **Exxon Co., U.S.A.** | |
| Exxon (r)<br>Exxon Unleaded (ur)<br>Exxon Extra Unleaded (up)<br>Alert (r,p,ur) | Oilex<br>Exxon Plus<br>Exxon Extra<br>Uniflo |
| **FCX, Inc.** | |
| Unico (r,ur,up) | Unico |
| **Farmland Industries** | |
| Co-op | Double Circle<br>Dual Season<br>Super TMS |
| **Fisca Oil Co.** | |
| Fisca (r,ur,up) | |
| **Fletcher Oil Co.** | |
| Veltex | |
| **Flying J Inc.** | |
| Flying J (r,ur) | |
| **Gasco Gasoline** | |
| Gasco (r,p,sp,ur) | Economy<br>Gasco Premium<br>Gasco All Season |
| **Gastown, Div. of Embro Marketing Co.** | |
| Gastown | Gastown |
| **Gem Petroleum** | |
| Citgo<br>Gem | Shop & Go<br>Citgo<br>Quaker State |
| **General Oil Co.** | |
| General | |
| **Giant Industries** | |
| Giant (r,p,ur,up) | |
| **Gresham Petroleum Co.** | |
| Amoco (r,ur,up) | Amoco |
| **Gulf Oil Co.** | |
| Good Gulf (r)<br>Gulf Crest (ur)<br>Gulf Super Unleaded (up) | Sapphire<br>Gulf Lube<br>Gulf Pride |
| **Harris Enterprises** | |
| Awful Bros. (r,ur,p) | |
| **Highland Petroleum Inc.** | |
| 7-Eleven<br>Gas-Pit | |
| **Barney Holland Oil Co.** | |
| Texaco (r,ur,up) | Gulf<br>Havoline<br>Mobil<br>Pennzoil<br>Quaker State<br>Exxon |
| **Holland Oil Co. (OH)** | |
| Holland (r,ur,up) | |
| **Hop-In Food Stores** | |
| Hop-In (r,ur,up) | |
| **Hornet Oil Co.** | |
| Hornet (r,ur,up) | |
| **Hudson Oil Co.** | |
| Hudson (r,p,sp,ur,up,usp) | HUD<br>Hudson<br>Hudson Premium |
| **Hughes Oil Co.** | |
| Mobil (r,p,ur,up)<br>Phillips (r,ur,up) | Mobil<br>Phillips |
| **Hull Oil Co.** | |
| Hull (r,ur,up,d) | Phillips |
| **J&L Oil Inc.** | |
| J&L | J&L Special<br>J&L Certified HD<br>J&L HD 10W40 |
| **Kellett Oil Co.** | |
| Kellett (r,ur,up) | |
| **Kenan Oil Co.** | |
| Circle K (r,ur,up)<br>Kenaco (r,ur,up) | |
| **Kerr-McGee Refining Corp.** | |
| KM (r,ur,up) | Valulube<br>Blue Mall "All Fleet"<br>Heavy Duty<br>Blue Velvet FEO |
| **Kickapoo Oil Co.** | |
| Kickapoo (r,p,sp,ur,up) | Kickapoo<br>Pennzoil |
| **Kimber-Allen Petroleum Corp.** | |
| Amoco<br>Citgo<br>Getty | Amoco<br>Citgo<br>Getty |
| **Kimbro Oil Co.** | |
| Amoco (r,ur,up) | Amoco |
| **Kittie Petroleum Inc.** | |
| Texaco<br>Phillips | Texaco<br>Phillips<br>Pennzoil |
| **Kocolene Oil Corp.** | |
| Kocolene (r,ur,up) | Kocolene Special<br>Kocolene Regular<br>Kocolene All Weather |
| **Lido Oil Co. of New England** | |
| Lido | Lido |
| **MFA Oil Co.** | |
| MFA (r,ur) | MFA Sho-Me<br>MFA Heavy Duty<br>MFA Super Heavy Duty<br>MFA Duty Special II |
| **Macmillan Ring-Free Oil Co.** | |
| | Scot Lube<br>Royal Scot<br>Ring-Free<br>Lone Ranger |
| **Marathon Petroleum Co.** | |
| MILE-maker (r,ur)<br>SUPER-M (up) | V.E.P. Heavy Duty Motor Oil<br>Multipower-3 Straight Weight<br>Multipower-3 15W40 Motor Oil<br>All-Season 10W30 Motor Oil<br>Superior All-Season 10W40<br>High Performance All-Season 20W50<br>Ultra-D 5W40 Motor Oil |
| **Marshall Oil Co.** | |
| Starflite | |
| **Martin Oil Marketing** | |
| Martin (r,p,o,ur,up,usp,uo) | Martin Oil<br>Martin HD<br>Martin 10/30<br>Martin 10/40 |
| **Merchants Oil Inc.** | |
| Phillips | Phillips |
| **Merit Oil Corp.** | |
| Merit (r,ur,up) | Merit Economy<br>Merit 10W40<br>Merit ATF |
| **Mico Oil Co.** | |
| Mico (r,ur,up) | |
| **Mid-Missouri Oil Co.** | |
| Shell | |
| **Miller Oil Co. (OH)** | |
| HyFlash (r,ur) | |
| **Miller Oil Co. (VA)** | |
| Amoco<br>Exxon<br>Phillips | |
| **Mobil Oil Corp.** | |
| Mobil (r,ur,up)<br>Reelo<br>Sello<br>Hi-Val<br>Big-Bi<br>Lo-Lo | Mobil Regular<br>Mobil Heavy Duty<br>Mobil Special<br>Mobil Super<br>Mobil 1 (synthetic) |
| **Murphy Oil USA Inc.** | |
| Spur (r,ur,up) | |
| **National Convenience Stores** | |
| Gulf (r,p,sp,ur,up,usp)<br>Amoco (r,p,sp,ur,up,usp) | Quaker State<br>Pennzoil<br>Texaco Havoline |
| **National Oil & Gas Inc.** | |
| Phillips (r,ur,up)<br>Marathon (r,ur)<br>Citgo (up) | Marathon<br>Shell<br>Phillips<br>Mobil<br>Kendall |
| **Newell Oil Co.** | |
| Gulf | Gulf |
| **Noco Energy Corp.** | |
| Noco (r,p,ur,up) | Noco<br>Mobil<br>Gulf |
| **Osceola Refining Co.** | |
| TA Energy (r,p,ur,up) | |
| **Curtis Parker Oil Co.** | |
| Amoco (r,ur,up) | Amolube<br>Amoco 100<br>Amoco 200<br>Amoco 300<br>Amoco M-V 10/30<br>Amoco LDD 10/40 |
| **Peavey Oil Co.** | |
| Texaco | Texaco |
| **Pester Corp.** | |
| Pester (r,p,sp,o) | |
| **Phillips Fuel Co.** | |
| Texaco | Texaco |
| **Phillips Petroleum Co.** | |
| Phillips 66 (r,ur,up,usp) | Unique<br>MM Motor Oil<br>Trop-Artic |

| | Gasoline | Motor Oil |
|---|---|---|
| **Piasa Motor Fuels** | | |
| | Conoco (r,p,sp,ur,up,usp) | Conoco |
| | | Shell |
| | | Quaker State |
| | | Valvoline |
| | | Pennzoil |
| **Pilot Oil Corp.** | | |
| | Pilot (r,ur,up) | Pilot 2 Gallon |
| | | Pilot Economy |
| | | Pilot 10W40 |
| | | Pilot A.T.F. |
| **Port Oil** | | |
| | Port (r,ur,up) | Palm |
| | | Port |
| **Power Test Corp.** | | |
| | P.T. (r,ur,up) | Power Test Motor Oil |
| | | Power Test Heavy Duty |
| | | Power Test All Weather |
| | | Power Test Dexron |
| **Pride Oil Co.** | | |
| | Tenneco (r,ur,up,d) | Kendall |
| | | Pennzoil |
| | | Quaker State |
| | | Havoline |
| **Quaker State Oil Refining Corp.** | | |
| | Sterling (r,ur) | Quaker State Regular Motor Oil |
| | | Quaker State HD Motor Oil |
| | | Quaker State HDX Universal Fleet Motor Oil |
| | | Quaker State Super Blend Motor Oil |
| | | Quaker State QSX Performance Motor Oil |
| | | Quaker State Deluxe Motor Oil |
| | | Quaker State Sterling Motor Oil |
| **Quality Oil Co.** | | |
| | Shell (r,p,sp,ur,up,usp) | Shell |
| | Quality Plus (r,p,sp,ur, up,usp) | |
| **Quincy Oil** | | |
| | Quincy (r,ur,up) | |
| **Reinhardt Oil Corp.** | | |
| | Sun (r) | Sun |
| | Sunlight (ur) | Citgo |
| | Citgo (r,ur) | |
| **R.I. Marketing Inc.** | | |
| | Rock Island | |
| **River Oil Co.** | | |
| | Phillips | Phillips |
| **Rocket Oil Co.** | | |
| | Rocket (r,ur,up) | |
| **Ross Resources** | | |
| | APCO (r,ur) | |
| | U-Pump-It (r,ur) | |
| **Santee Oil** | | |
| | Shell (r,ur,up) | Shell |
| | | X-100 |
| | | Fire & Ice |
| **Sears Oil Co.** | | |
| | Sears | Tri-Pure |
| | | Sears |
| | | Sears Supreme |
| **Shelby Petroleum Corp.** | | |
| | Peer (r,p,sp,ur,up,usp) | Sail |
| | Sail (o,uo) | Bonus |
| | Bonus (r,p,sp,ur,up,usp,o) | Peer Premium |
| | | Peer HD |
| | | Peer Multi-Vis |
| **Shell Oil Co.** | | |
| | Shell (r,ur,up) | Shell Motor Oil |
| | | Shell X-100 |
| | | Shell Fire & Ice |
| **Shotmeyer Oil Corp.** | | |
| | U-Save Mogas (r,p,sp,ur,up,usp,d) | |
| **The SICO Co.** | | |
| | Amoco (r,ur,up) | Citgo |
| | ARCO (r,ur,up) | Arco |
| | | Texaco |
| | | Valvoline |
| | | Amoco |
| | | Quaker State |
| **Simon Oil Co.** | | |
| | Sun | |
| | Mobil | |
| **Sing Oil Co.** | | |
| | Sing | |
| **Smith-Shafer Oil Co.** | | |
| | S-S | Quaker State |
| **The Somerset Refinery Inc.** | | |
| | Somerset (r,p) | Gurley |
| | | Valvoline |
| | | Havoline |
| | | Quaker State |
| | | Pennzoil |
| **Southland Oil Co.** | | |
| | Southland | Southland |
| **The Spencer Companies** | | |
| | Amoco (r,ur,up) | Amoco |
| | Citgo (r,ur,up) | Citgo |
| | | Quaker State |
| | | Havoline |
| | | Castrol Oil |
| | | Saxton |
| **Standard Cycle & Auto Supply Co.** | | |
| | Texaco | Texaco |
| **Standard Oil Co. (Ohio)** | | |
| | Octron (r) | Premex 10W40 |
| | Cetron (ur) | BP Extra Duty 10W30 |
| | Wm. Penn (r,p,ur) | Nitrex MPG5W40 |
| | Gas & Go (r,ur) | |
| **Steuart Petroleum Co.** | | |
| | Steuart (r,ur,up) | Kendall |
| | | Pennzoil |
| | | Sunoco |
| **Sun Co.** | | |
| | Sunoco (r,ur,up,usp,o) | Diamond |
| | | Sun Lube |
| | | Dynalube |
| | | Special |
| | | MPG Plus |
| **Sunshine Jr. Stores** | | |
| | Jr. (r,ur,up,usp) | |
| **Tanner Oil Co.** | | |
| | Rich (r,ur,up) | Valvoline |
| **Target Enterprises (Calif.)** | | |
| | Fast Save | Havoline |
| | Texaco | |
| **Taylor Oil Co.** | | |
| | Etna (r,ur,up) | |
| **Tenneco Oil Co.** | | |
| | Tenneco (r,ur,up) | Shur Lube |
| | Trust | Tenneco Special Detergent |
| | Direct | Tenneco ATF Dexron II |
| | | Tenneco ATF Ford Type F |
| | | Tenneco Extra HD |
| | | Tenneco Four Seasons |
| **Tesoro Petroleum Corp.** | | |
| | Tesoro (r,ur) | |
| **Thornhill Oil Co.** | | |
| | Amoco (r,ur,up) | Amolube |
| | | Amoco Cash & Carry |
| | | Amoco LDO |
| | | Amoco Ultimate |
| | | Quaker State Deluxe |
| **Tooley Oil Co.** | | |
| | Tooley's | |
| **Total Petroleum** | | |
| | Total | APCO Defiance |
| | APCO | Total Dura Lube |
| | Vickers | Vickers Big Value |
| | Best | Total Super HD |
| | | Vickers Golden Supreme |
| | | Total Superlube |
| | | Total 500 |
| | | Vickers 10W40 |
| **Transit Oil Co.** | | |
| | Transit | |
| **Travelers Petroleum** | | |
| | Self Way (r,ur,up) | |
| | Texaco (r,ur,up) | |
| **Union Oil Co. of California** | | |
| | 76 (r,p,ur,up) | Premium Motor Oil |
| | | Super 10W40 |
| | | Super 10W30 |
| | | 20W50 High Performance |
| | | Guardol Motor Oil |
| | | Guardol 15W40 Motor Oil |
| | | United Motor Oil |
| | | Heavy Duty Motor Oil |
| | | EOK Motor Oil 15W40 |
| **United States Oil Co.** | | |
| | Express (r,ur,up) | |
| **Western Marketing Inc.** | | |
| | Conoco (r,p,sp,o,ur,up, usp,uo) | Conoco |
| | | Shell |
| **Wickland Oil Co.** | | |
| | Regal (r,ur,up) | Gold Shield |
| **Willard Oil Co.** | | |
| | Fast Phil's | |
| **A.T. Williams Oil Co.** | | |
| | Willo | Willo |
| **J.H. Williams Oil Co.** | | |
| | Union 76 (r,ur,up) | Union Custom |
| | | Union Heavy Duty |
| | | Union Guardol |
| | | Union Premium |
| | | Union Super |
| | | Union High Performance |
| | | Union Long Distance Purple |
| **York Oil Co.** | | |
| | Citgo | Citgo |
| | Easy Go | |
| **Young Oil Co. (AL)** | | |
| | Young (r,ur) | |
| **Zephyr** | | |
| | Zephyr (r,p,ur,up) | Pride |
| | | H.D. |
| | | All-Temp |

**KEY**

**Gasoline**
**(r) Regular**
**(u) Unleaded**
**(p) Premium**
**(sp) Super Premium**
**(o) Other**
**(d) Diesel**

Source: NPN Questionnaires

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7 **An established distributor organization** with a proven record of success in selling CITGO products.

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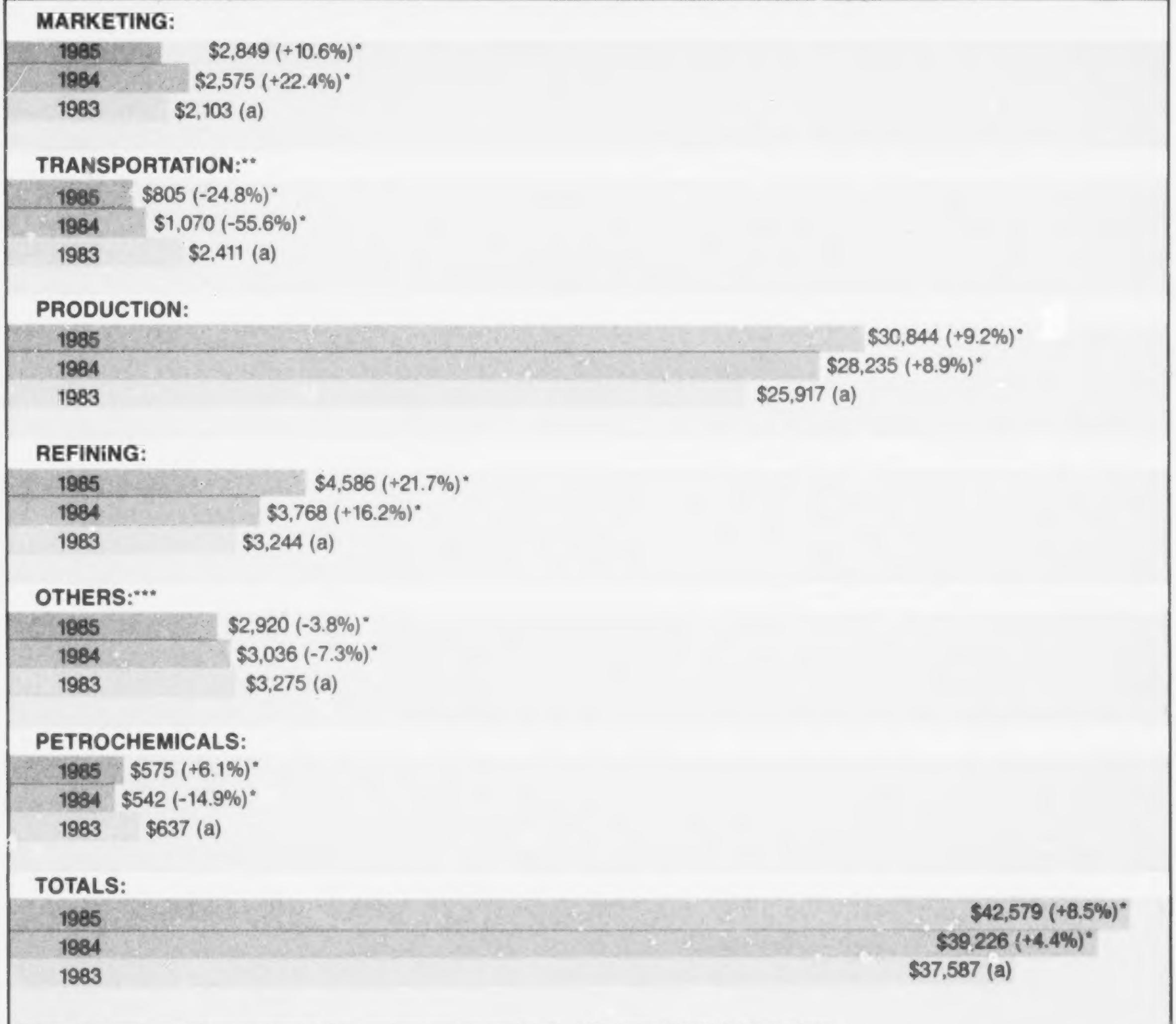
## Capital Spending by Marketing Industry (Millions of Dollars)



*Figures in parentheses indicate percentage of change from previous year's total. **Includes only oil pipelines, not gas.
***Includes coal mining. (a) Comparisons with prior years cannot be made inasmuch as the projection bases from 1981 on were changed materially and cannot be related.

Source: McGraw-Hill Economics Department, Nov. 1983

# Billions Targeted for Oil Marketing Expansion

**Even as they retrench and regroup in the increasingly bitter battle for customers and markets, the nation's oil companies are pouring billions of dollars into new marketing facilities.**

McGraw-Hill, Inc.'s annual capital investment forecast says the companies will spend at least $2.1-billion in 1983, $2.6-billion in 1984, and $2.8-billion in 1985 to modernize and expand their marketing facilities.

The three-year total of $7.5-billion is the most the industry has ever targeted for marketing alone in such a short period of time.

Add that to the $1.9-billion that was invested in 1982 and the $2.1-billion that was spent in 1981, and the five-year total approaches the $12-billion mark.

Most of the money is going into gasoline marketing, the industry's Cinderella product.

It's being used for real estate purchases, image enhancement programs, and for the modernization of gasoline stations or the construction of entirely new pumper-type locations to replace handfuls of smaller 30,000- to 50,000-gal. type outlets.

While real estate and other costs soar, suppliers, jobbers, and retailers must make the transition from orthodox operations to electronics with the anticipation that automated teller machines and electronic funds transfer will be coming on in breathtaking fashion over the next two or three years. Most majors already are experimenting with some form of electronic equipment.

The McGraw-Hill estimate is based on the majors, and accounts for about 75% of oil's capital spending, so it's possible to speculate that the remaining 25% could amount to as much as $2.5-billion in the 1983-85 period. If that is true, marketing's investments during that time span would be in the $10-billion range.

The entire petroleum industry is expected to invest $37.6-billion in 1983, $39.2-billion in 1984, and $42.6-billion in 1985. The industry's peak year of expenditures was 1981, when the investments exceeded $46.2-billion. They declined ever so slightly in 1982 in the face of sloppy markets and prices for gasoline and fuel oil—its principal products. Total investments plummeted to $37.6-billion in 1983—a one year drop of 18.5%. Production took the worst beating—a decline of almost $6-billion, as the world floated on a sea of excess oil.

# Capital Spending in the Oil Industry: Almost $500-billion in 35 Years

| | Planned 1985 | Planned 1984 | Estimated 1983 | 1982 | 1981 |
|---|---|---|---|---|---|
| Marketing | $ 2,849 | $ 2,575 | $ 2,103 | $ 1,940 | $ 2,121 |
| Refining | 4,586 | 3,768 | 3,244 | 5,490 | 4,943 |
| Transportation(a) | 805 | 1,070 | 2,411 | 2,315 | 2,842 |
| Production | 30,844 | 28,235 | 25,917 | 31,035 | 31,233 |
| Petrochemicals | 575 | 542 | 637 | 1,060 | 1,243 |
| Other(b) | 2,920 | 3,036 | 3,275 | 4,273 | 3,853 |
| **Total Petroleum** | **42,579** | **39,226** | **37,587** | **46,113** | **46,195** |

| | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 | 1972 | 1971 |
|---|---|---|---|---|---|---|---|---|---|---|
| Production | $21,423 | $17,039 | $14,986 | $12,593 | $11,144 | $ 8,925 | $ 6,803 | $4,307 | $4,098 | $3,356 |
| Transportation(a) | 2,001 | 1,473 | 989 | 1,191 | 1,832 | 1,681 | 907 | 708 | 532 | 572 |
| Refining | 3,378 | 3,070 | 2,071 | 2,025 | 2,531 | 2,275 | 1,716 | 1,013 | 1,062 | 1,232 |
| Petrochemicals | 1,053 | 946 | 1,239 | 1,245 | 1,092 | 847 | 729 | 339 | 300 | 361 |
| Marketing | 1,814 | 1,433 | 1,616 | 790 | 632 | 632 | 614 | 777 | 1,110 | 1,322 |
| Other(b) | 2,850 | 2,140 | 1,920 | 1,450 | 970 | 1,070 | 860 | 610 | 570 | 510 |
| **Total Petroleum** | **32,519** | **26,101** | **22,821** | **19,294** | **18,201** | **15,430** | **11,629** | **7,754** | **7,672** | **7,353** |

| | 1970 | 1969 | 1968 | 1967 | 1966 | 1965 | 1964 | 1963 | 1962 | 1961 |
|---|---|---|---|---|---|---|---|---|---|---|
| Production | $ 3,541 | $ 4,581 | $ 3,980 | $ 3,595 | $ 3,788 | $ 3,382 | $ 3,584 | $ 2,990 | $ 3,382 | $ 3,458 |
| Transportation(a) | 615 | 526 | 542 | 414 | 321 | 249 | 319 | 249 | 286 | 321 |
| Refining | 1,152 | 1,023 | 1,019 | 956 | 631 | 565 | 384 | 385 | 433 | 459 |
| Petrochemicals | 564 | 564 | 600 | 561 | 597 | 343 | 173 | 340 | 252 | 260 |
| Marketing | 1,392 | 1,141 | 1,097 | 1,065 | 926 | 747 | 655 | 560 | 538 | 533 |
| Other(b) | 510 | 416 | 408 | 453 | 310 | 365 | 281 | 168 | 154 | 132 |
| **Total Petroleum** | **7,774** | **8,251** | **7,646** | **7,044** | **6,573** | **5,651** | **5,396** | **4,692** | **5,045** | **5,163** |

| | 1960 | 1959 | 1958 | 1957 | 1956 | 1955 | 1954 | 1953 | 1952 | 1951 |
|---|---|---|---|---|---|---|---|---|---|---|
| Production | $ 3,339 | $ 3,474 | $ 3,203 | $ 3,603 | $ 3,593 | $ 3,500 | $ 2,992 | $ 2,779 | $ 2,754 | $ 2,388 |
| Transportation(a) | 306 | 276 | 317 | 423 | 261 | 249 | 350 | 450 | 400 | 300 |
| Refining | 455 | 402 | 657 | 877 | 694 | 590 | 686 | 661 | 446 | 339 |
| Petrochemicals | 150 | 115 | NA | NA | NA | NA | NA | NA | NA | NA |
| Marketing | 498 | 461 | 404 | 426 | 426 | 364 | 350 | 325 | 280 | 300 |
| Other(b) | 94 | 90 | 92 | 70 | 67 | 45 | 50 | 50 | 50 | 50 |
| **Total Petroleum** | **4,482** | **4,818** | **4,673** | **5,399** | **5,041** | **4,748** | **4,428** | **4,265** | **3,930** | **3,377** |

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(a) Includes oil pipelines but not gas pipelines; (b) includes coal mining.

Source: McGraw-Hill Publications Co., Department of Economics. The figures in the tables represent capital spending of integrated petroleum companies in the mining, transportation, and retail trade sectors. The figures are not comparable with the petroleum figures in McGraw-Hill's regular capital spending report, in which the petroleum category includes spending of refiners and integrated companies only.

# How Oil Companies Handle

| MAJOR OIL COMPANIES | TOTAL BRANDED RETAIL OUTLETS* | TOTAL NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED† | BRANDED SERVICE STATIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Total true branded service stations | Supplied directly | Supplied through jobbers and commission agents | Lessee/ dealer operated | Salary operated | Commission operated |
| **Amoco Oil Co.** | **17,800** | **35** | **17,800** | **5,500** | **12,300** | **5,400** | **100** | **0** |
| **Atlantic Richfield** | **4,363(B)** | **24** | **4,363** | **2,978** | **1,385** | **(x)** | **(x)** | **(x)** |
| **Chevron USA** | **12,111** | **39** | **7,579** | **5,094** | **2,485** | **7,486** | **93** | **0** |
| Exxon Co., USA | 18,707 | 41 | 18,707 | 7,189 | 11,518 | NA | NA | NA |
| Gulf Oil Co. | 15,103 | 33 | 15,103 | 3,635 | 11,468 | 2,973 | 662 | (QQ) |
| Mobil Oil Corp. | 15,403(R) | 43 | (x) | (x) | (x) | (x) | (x) | (x) |
| **Shell Oil Co.** | **12,147** | **40** | **5,124** | **5,124** | **0** | **4,894** | **230** | **0** |
| **Texaco (xxx)** | **18,692** | **46** | **17,758** | **4,400** | **13,042** | **13,042** | **3** | **304** |
| **SEMI-MAJOR OIL COMPANIES** | | | | | | | | |
| **Ashland Petroleum Co.** | **187** | **7** | **187** | **81** | **106** | **187** | **0** | **0** |
| **Citgo Petroleum Co.** | **3,915** | **31** | **1,905** | **400** | **1,505** | **(x)** | **(x)** | **(x)** |
| **Conoco, Inc.** | **5,091** | **40** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** |
| Crown Central Petroleum Co. | 200 (PP) | (x) | (x) | All | (x) | (x) | (x) | (x) |
| Diamond Shamrock Corp. | 1,993(I) | 25 | 1,993 | 565 | 1,428 | 575 | 1,418 | 0 |
| Getty Refining & Marketing Co. (xxx) | 4,494 | 28 | 4,494 | 2,002 | 2,492 | 4,141 | 353 | 0 |
| **Kerr-McGee Refining Corp.** | **1,785** | **21** | **1,770** | **70** | **1,700** | **1,727** | **43** | **0** |
| **Marathon Oil Co.** | **2,210** | **5** | **2,192** | **684** | **1,508** | **503** | **0** | **0** |
| **Murphy Oil Co.** | **614** | **14** | **614** | **504** | **110** | **217** | **0** | **0** |
| Phillips Petroleum Co. | 11,827(W) | 37 | 11,827 | 192 | 11,635 | (x) | (x) | (x) |
| Standard Oil Co. (Ohio) | 2,100 | 20 | (x) | (x) | (x) | (x) | (x) | (x) |
| Sun Co. | 6,808(JJ) | 27 | 6,688 | 3,601 | 3,087 | 6,578 | 110 | 0 |
| **Tenneco Oil Co.** | **418(LL)** | **15** | **417** | **417** | **0** | **0** | **417** | **0** |
| **Union Oil Co. of Calif.** | **11,221** | **44** | **9,163** | **3,100** | **6,063** | **2,341** | **138** | **6,684** |
| **INDEPENDENT OIL COMPANIES AND SELECTED OIL JOBBERS** | | | | | | | | |
| **Ada Resources** | **143** | **1** | **122** | **59** | **63** | **43** | **16** | **63** |
| **Agway Petroleum Corp.** | **187** | **9** | **—** | **46** | **—** | **29** | **14** | **3** |
| **American Oil & Supply** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| American Petrofina | 4,037(A) | 20 | 3,230 | 0 | 3,230 | 0 | 0 | 0 |
| Arkla Chemical Corp. | 4 | 3 | 1 | 4 | 0 | 3 | 1 | 0 |
| Armour Oil Co. | 85 | 5 | 85 | 85 | 0 | 0 | 43 | 42 |
| **Avalon Petroleum** | **1** | **1** | **1** | **1** | **0** | **0** | **1** | **0** |
| **The Augsbury Corp.** | **115** | **2** | **85** | **60** | **25** | **35** | **40** | **10** |
| **Automatic Comfort Corp.** | **52** | **1** | **14** | **14** | **0** | **4** | **0** | **0** |
| Bagwell Oil Co. | 16 | 2 | 4 | 4 | 0 | 4 | 0 | 0 |
| Beacon Oil Co. | 268 | 3 | 268 | 151 | 117 | 197 | 0 | 0 |
| Best Oil Inc. | 18 | 1 | 18 | 14 | 4 | 2 | 16 | 0 |
| **Brennan Petroleum Prod.** | **3** | **1** | **3** | **3** | **0** | **0** | **3** | **0** |
| **Browning Oil Co.** | **17** | **1** | **17** | **0** | **0** | **0** | **6** | **7** |
| **Bursaw Oil Corp.** | **40(C)** | **2** | **40** | **40** | **0** | **5** | **13** | **0** |
| By-Lo Oil Co. | 3 | 1 | 3 | 3 | 0 | 0 | 3 | 0 |
| CSC Oil Co. | 22 | 2 | 16 | 16 | 0 | 0 | 16 | 0 |
| Campbell Oil Co. | 75 | 1 | 75 | 0 | 0 | 75 | 0 | 0 |
| **Cannon Oil Corp.** | **17** | **3** | **17** | **17** | **0** | **0** | **16** | **1** |
| **Cardon Oil Co.** | **50** | **4** | **50** | **50** | **0** | **0** | **50** | **0** |
| **Cei Oil Products (D)** | **16** | **1** | **16** | **16** | **0** | **2** | **7** | **7** |
| Center Indep. Oil Co. | 15 | 1 | 15 | 15 | 0 | 0 | 15 | 0 |
| Certified Oil Co. | 200 | 3 | 200 | 200 | 0 | 0 | 100 | 100 |
| Chapman Inc. | 67 | 3 | 67 | 59 | 8 | 55 | 12 | 0 |
| **Chevron USA** | **12,111** | **39** | **7,579** | **5,094** | **2,485** | **7,486** | **93** | **0** |
| **Cibro Petroleum** | **104** | **1** | **85** | **15** | **70** | **0** | **0** | **0** |
| **Citgo Petroleum Corp.** | **3,915** | **31** | **1,905** | **400** | **1,505** | **(x)** | **(x)** | **(x)** |
| Coln Oil Corp. | 350 | 3 | 250 | 250 | 0 | 248 | 0 | 2 |
| Colonial Oil Ind., Inc. | 65(F) | 3 | 65 | 65 | 0 | 0 | 65 | 0 |
| Comet Oil Co. | 4 | 2 | 4 | 4 | 0 | 0 | 4 | 0 |
| **Conna Corp.** | **267** | **9** | **0** | **0** | **0** | **0** | **0** | **0** |
| **Consumers Gasoline Stations** | **30** | **2** | **30** | **30** | **0** | **0** | **30** | **0** |
| **Consumers Petroleum (MI) (xxx)** | **20** | **1** | **(x)** | **(x)** | **(x)** | **(x)** | **(x)** | **(x)** |
| Cook & Cooley, Inc. | 75 | 1 | 75 | 0 | 0 | 0 | 0 | 0 |
| Coral Ridge Corp. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cory's Gasoline Stations | 3 | 1 | 3 | 0 | 3 | 0 | 0 | 3 |
| **Crystal Flash** | **17** | **1** | **17** | **0** | **0** | **0** | **0** | **0** |
| **Crystal/USA Oil Co.** | **79(G)** | **5** | **79** | **79** | **0** | **59** | **20** | **0** |
| **Curt's Oil Co.** | **7** | **1** | **7** | **7** | **0** | **0** | **7** | **0** |
| K. E. David, Ltd. | 20 | 1 | 20 | 0 | 0 | 10 | 8 | 2 |
| Davis-Howland Oil | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| DeBlois Oil Co. | 50(H) | 2 | 49 | 49 | 0 | 17 | 32 | 0 |
| **Derby Refining Co.** | **529** | **12** | **520** | **125** | **395** | **145** | **375** | **0** |
| **Desert Oil Co.** | **7** | **1** | **6** | **0** | **6** | **6** | **0** | **0** |
| **Dickey Inc.** | **6** | **1** | **6** | **6** | **0** | **0** | **6** | **0** |
| Dixie Oil Co. (xxx) | 97 | 3 | 97 | (x) | (x) | 97 | (x) | (x) |
| East Coast Oil Corp. | 32 | 1 | 32 | 32 | 0 | 0 | 32 | 0 |
| Englefield Oil Co. | 152 | 2 | (x) | (x) | (x) | (x) | (x) | (x) |
| **FCX, Inc.** | **98** | **2** | **0** | **0** | **0** | **0** | **0** | **0** |
| **Fairlie & Wilson Co.** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** |
| **Farmland Industries** | **1,100** | **16** | **770** | **0** | **1,100** | **0** | **0** | **0** |
| Fireline Petroleum | 509 | 11 | 509 | 509 | 0 | 0 | 509 | 0 |
| Fisca Oil Co. | 102 | 22 | 102 | 102 | 0 | 0 | 0 | 0 |
| Fletcher Oil Co. | 15(J) | 3 | 15 | 15 | 0 | 2 | 5 | 8 |
| **Flying J. Inc.** | **59(K)** | **9** | **59** | **59** | **0** | **2** | **57** | **0** |
| **Franko Oil Co.** | **92** | **3** | **(x)** | **(x)** | **(x)** | **(x)** | **(x)** | **(x)** |
| **Gary Energy Corp. (xxx)** | **(x)** | **(x)** | **(x)** | **(x)** | **(x)** | **(x)** | **(x)** | **(x)** |
| Gas-N-Go | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 |

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*Total branded outlets, according to the U.S. Census Bureau definition, are establishments generating 50% or more of their income from the sale of petroleum products and services.

†Includes District of Columbia

(xxx) Did not respond—latest data available.

(x) Did not provide numbers.

(A) Includes American Petrofina Marketing Inc., Fina Serve Inc., Porto Fina Oil Co.

# Product Distribution

| | | | BRANDED JOBBERS | | | | COMMISSION AGENTS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NUMBER SELLING . . . | | | | NUMBER SELLING . . . | | |
| Full service only | Self-service only | Self-service/ full service | Total | Gasoline only | Fuel oil only | Gasoline/ fuel oil | Total | Gasoline only | Fuel oil only | Gasoline/ fuel oil |
| 1% | 25%-30% | 70%-75% | 1,923 | NA | NA | NA | 0 | NA | NA | NA |
| (x) | (x) | (x) | 152 | 152 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3,218 | 267 | 4,094 | 840(E) | 0 | 89 | 501 | 40 | 0 | 0 | 40 |
| NA | NA | NA | 916 | NA | 0 | NA | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | 1,087 | 0 | 454 | 633 | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | 1,803 | 35 | 572 | 1,196 | 28 | 0 | 0 | 28 |
| 737 | 1,293 | 3,094 | 596 | 0 | 91 | 505 | 0 | 0 | 0 | 0 |
| NA | NA | NA | 1,176 | NA | NA | NA | 6 | NA | NA | NA |
| 113 | 1 | 73 | 32 | 6 | 3 | 23 | 160 | 0 | 0 | 160 |
| (x) | (x) | (x) | 250 | 0 | 0 | 250 | 0 | 0 | 0 | 0 |
| NA | NA | NA | 760 | NA | NA | NA | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 100 | 1,643 | 250 | 166 | 166 | 0 | 0 | 0 | 0 | 0 | 0 |
| — | — | — | 582 | 0 | 0 | 582 | — | — | — | — |
| 50 | 204 | 1,516 | 428 | 62 | 26 | 340 | 0 | 0 | 0 | 0 |
| 830 | 73 | 1,289 | 86 | 0 | 6 | 80 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | 1,751 | 0 | 0 | 1,751 | 2 | 0 | 0 | 2 |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | 0 | 0 | 0 | 0 |
| 1 | 416 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1,923 | 2,271 | 4,969 | 405 | 1 | 0 | 404 | 158 | 0 | 0 | 158 |
| 91 | 16 | 15 | 19 | 19 | 0 | 0 | 2 | 2 | 0 | 0 |
| 0 | 44 | 2 | 28 | 4 | 2 | 22 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 969 | 808 | 1,453 | 440 | 374 | 0 | 66 | 0 | 0 | 0 | 0 |
| 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 85 | 0 | 0 | 0 | 0 | 0 | 43 | 43 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25 | 50 | 10 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| 14 | 0 | 0 | (x) | (x) | (x) | (x) | 3 | 3 | 0 | 0 |
| 4 | 0 | 0 | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 10 | 219 | 39 | 23 | 23 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 2 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 10 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | NA | NA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 17 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 0 | 50 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| — | — | — | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | 0 | 190 | 0 | 0 | 0 | 0 | 100 | 90 | 0 | 10 |
| 20 | 17 | 30 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3,218 | 267 | 4,094 | 840(E) | 0 | 89 | 501 | 40 | 0 | 0 | 40 |
| 60 | 0 | 25 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | 250 | 0 | 0 | 250 | 0 | 0 | 0 | 0 |
| 100 | 2 | 148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 4 | 54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 267 | 267 | 0 | 0 |
| 9 | 20 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 0 | 50 | 25 | 75 | 45 | 0 | 30 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 1 | 12 | 4 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 0 | 79 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | 12 | 2 | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 95 | 290 | 135 | 89 | 0 | 0 | 89 | 0 | 0 | 0 | 0 |
| 0 | 0 | 6 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 3 | 1 | 2 | 6 | 4 | 0 | 2 | 0 | 0 | 0 | 0 |
| (x) | 50 | 40 | 90 | 50 | (x) | 40 | (x) | (x) | (x) | (x) |
| 0 | 27 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 0 | 0 | 0 | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300 | 100 | 700 | 1,100 | 0 | 0 | 1,100 | 0 | 0 | 0 | 0 |
| 36 | 404 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 57 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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(B) Includes Prestige Stations Inc.
(C) Includes Enon Enterprises Inc.
(D) Includes Gas-Up Inc.
(E) Includes 250 branded lube oil jobbers.
(F) Includes Interstate Stations Inc., Colonial Interstate Inc.
(G) Includes Crystal Petroleum Co., Inc.

| BULK PLANTS | | | | TERMINALS | | | | |
|---|---|---|---|---|---|---|---|---|
| | COMPANY OPERATED | | | | COMPANY OPERATED | | | |
| Total | Salary operated | Commission operated | Jobber operated bulk plants | Total | Salary operated | Commission operated | Jobber operated terminals | MAJOR OIL COMPANIES |
| 0 | 0 | 0 | 2,241 | 84 | 84 | 0 | NA | **Amoco Oil Co.** |
| 0 | 0 | 0 | 0 | 43 | 43 | 0 | (x) | **Atlantic Richfield** |
| 714 | 0 | 44 | 670 | 126 | 100 | 1 | 25 | **Chevron USA** |
| 0 | 0 | 0 | 0 | 68 | 68 | 0 | NA | Exxon Co. USA |
| 2 | 1 | 0 | NA | 67 | 67 | 0 | 0 | Gulf Oil Co. |
| 231(S) | 87 | 144 | 1,696 | 87 | 87 | 0 | 0 | Mobil Oil Corp. |
| 781 | 89 | 0 | 692 | 14(CC) | 14 | 0 | 0 | **Shell Oil Co.** |
| 1,495 | 0 | 5 | 1,490 | 85 | 85 | 0 | NA | **Texaco (xxx)** |
| | | | | | | | | SEMI-MAJOR OIL COMPANIES |
| 132 | 3 | 129 | 13 | 39 | 39 | 0 | 0 | **Ashland Petroleum Co.** |
| 0 | 0 | 0 | 0 | 60 | 32 | 0 | 28 | **Citgo Petroleum Co.** |
| 0 | 0 | 0 | 0 | 62 | NA | NA | NA | **Conoco, Inc.** |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | Crown Central Petroleum Co. |
| 0 | 0 | 0 | 0 | 13 | 13 | 0 | 0 | Diamond Shamrock Corp. |
| — | — | — | — | 33(RR) | 30 | 3 | — | Getty Refining & Marketing Co. |
| 1 | 1 | 0 | 382 | 2 | 2 | 0 | 1 | **Kerr-McGee Refining Co.** |
| 253 | 1 | 0 | 1 | 50 | 50 | 0 | 0 | **Marathon Oil Co.** |
| 0 | 0 | 0 | (x) | 8 | 8 | 0 | (x) | **Murphy Oil Co.** |
| 6 | 4 | 2 | (x) | 31 | 31 | (x) | 4 | Phillips Petroleum Co. |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | Standard Oil Co. (Ohio) |
| (x) | (x) | (x) | (x) | 40 | (x) | (x) | (x) | Sun Co. |
| 39 | 21 | 18 | 0 | 11 | 11 | 0 | 0 | **Tenneco Oil Co.** |
| 192 | 39 | 153 | 441 | 56 | 54 | 2 | 1 | **Union Oil Co. of Calif.** |
| | | | | | | | | INDEPENDENT OIL COMPANIES AND SELECTED OIL JOBBERS |
| 4 | 2 | 2 | 19 | 0 | 0 | 0 | 0 | **Ada Resources** |
| 113 | 113 | 0 | 28 | 11 | 11 | 0 | 0 | **Agway Petroleum Corp.** |
| 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | **American Oil & Supply** |
| 0 | 0 | 0 | 352 | 9 | 9 | 0 | 0 | American Petrofina |
| 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | Arkla Chemical Corp. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Armour Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Avalon Petroleum** |
| 8 | 6 | 2 | 0 | 5 | 5 | 0 | 0 | **The Augsbury Corp.** |
| 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | **Automatic Comfort Corp.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Bagwell Oil Co. |
| 23 | 0 | 0 | 23 | 9 | 0 | 0 | 9 | Beacon Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Best Oil Inc. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Brennan Petroleum Prod.** |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **Browning Oil Co.** |
| 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | **Bursaw Oil Co.** |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | By-Lo Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | CSC Oil Co. |
| 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | Campbell Oil Co. |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **Cannon Oil Corp.** |
| 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | **Cardon Oil Co.** |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **Cel Oil Products (D)** |
| 1 | — | — | — | 0 | 0 | 0 | 0 | Center Indep. Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Certified Oil Co. |
| 4 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | Chapman, Inc. |
| 714 | 0 | 44 | 670 | 126 | 100 | 1 | 25 | **Chevron, USA** |
| 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | **Cibro Petroleum** |
| 0 | 0 | 0 | 0 | 60 | 32 | 0 | 28 | **Citgo Petroleum Corp.** |
| 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | Coen Oil Corp. |
| 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | Colonial Oil Ind., Inc. |
| 1 | — | — | — | 0 | 0 | 0 | 0 | Comet Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Conna Corp.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Consumers Gasoline Stations** |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | **Consumers Petroleum (MI) (xxx)** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Cook & Cooley, Inc. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Coral Ridge Corp. |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | Cory's Gasoline Stations |
| 4 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | **Crystal Flash** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Crystal/USA Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Cort's Oil Co.** |
| 3 | 2 | 1 | 0 | 1 | 1 | 0 | 0 | K. E. David, Ltd. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Davis-Howland Oil |
| 3 | 3 | 0 | (x) | (x) | (x) | (x) | (x) | DeBlois Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Derby Refining Co.** |
| 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | **Desert Oil Co.** |
| 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | **Dickey Co.** |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | Dixie Oil Co. (xxx) |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | East Coast Oil Corp. |
| 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | Englefield Oil Co. |
| 22 | 22 | 0 | 0 | (x) | (x) | (x) | (x) | **FCX, Inc.** |
| 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | **Fairlie & Wilson Co.** |
| 1,250 | 0 | 0 | 1,250 | 0 | 0 | 0 | 0 | **Farmland Industries** |
| 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | Fireline Petroleum |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Fisca Oil Co. |
| 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | Fletcher Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Flying J, Inc.** |
| 2 | 0 | 2 | (x) | (x) | (x) | (x) | (x) | **Franko Oil Co.** |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | **Gary Energy Corp. (xxx)** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Gas-N-Go |

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(H). Includes Beacon Oil Co.

(I) Includes Sigmor Retail, Autotronic Systems.

(J) Includes Price-Less Gas, Inc.

# How Oil Companies Handle

| INDEPENDENT OIL COMPANIES AND SELECTED OIL JOBBERS | TOTAL BRANDED RETAIL OUTLETS* | TOTAL NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED† | BRANDED SERVICE STATIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Total true branded service stations | Supplied directly | Supplied through jobbers and commission agents | Lessee dealer operated | Salary operated | Commission operated |
| **Gasco Gasoline** | 104 | 1 | 104 | 94 | 0 | 10 | 77 | 17 |
| **Gastown** | 196 | 1 | 196 | 196 | 0 | 6 | 190 | 0 |
| **Gate Petroleum Co.** | 80 | 8 | 80 | 80 | 0 | — | — | — |
| Gem Petroleum | 307 | 2 | 307 | 254 | 53 | 0 | 254 | 53 |
| General Oil Co | 52 | 2 | 52 | NA | NA | 0 | 42 | 10 |
| Giant Industries Inc | 12 | 2 | 12 | 6 | 6 | 0 | 12 | 0 |
| **Golden Gate Petroleum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Gresham Petroleum** | 12 | 1 | 3 | 3 | 0 | 3 | 0 | 0 |
| **Jack Griffith Petroleum Prods.** | 14 | 1 | 2 | 2 | 0 | 0 | 2 | 0 |
| Growmark Inc. (xxx) | 160 | 3 | 160 | 0 | 160 | 80 | 80 | 0 |
| Gull Industries | 110 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Harrell Petroleum | 25 | 1 | 12 | 0 | 25 | 5 | — | — |
| **Harris Enterprises** | 20 | 1 | 20 | 20 | 0 | 10 | 0 | 0 |
| **Highland Petroleum Inc.** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Angus I. Hines Inc.** | 60 | 1 | 8 | 8 | 0 | 3 | 2 | 3 |
| Hinkle Distributors | 9 | 1 | 9 | 9 | 0 | NA | NA | NA |
| Barney Holland Oil Co | 68(M) | 1 | 36 | 30 | 6 | 36 | 0 | 0 |
| Holland Oil Co. (OH) | 53 | 1 | 53 | 53 | 0 | 28 | — | — |
| **Hop-In Food Stores** | 112 | 2 | NA | 0 | 37 | 0 | 0 | 37 |
| **Hornet Oil Co.** | 37 | 6 | 37 | 37 | 0 | — | — | — |
| **Hub Langie Fuel Corp.** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hudson Oil Co. & Affiliated Cos. (L) | 235 | 27 | 170 | 170 | 0 | 0 | 170 | 0 |
| Hughes Oil Co. | 110 | 1 | 50 | 50 | 0 | 50 | 0 | 0 |
| Hull Oil Co. | 20 | 2 | 20 | 20 | 0 | 1 | 6 | 13 |
| **J & L Oil Inc.** | 65 | 3 | 62 | 62 | 0 | 6 | 56 | 0 |
| **J. S. & J. Service, Inc.** | 19 | 2 | 19 | 19 | 0 | 0 | 19 | 0 |
| **Johnson Products** | 40 | 5 | 40 | 19 | 21 | 0 | 40 | 0 |
| Jones Oil Co | 6 | 1 | 6 | 6 | 0 | 0 | 6 | 0 |
| Kaibab Industries | 30 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kellett Oil Co | 3 | 1 | 3 | 3 | 0 | 0 | 0 | 3 |
| **Kenan Oil Co.** | 27 | 1 | 27 | 27 | 0 | 13 | 0 | 14 |
| **Kickapoo Oil Co.** | 55 | 1 | 55 | 55 | 0 | 0 | 55 | 0 |
| **Kimber-Allen Petroleum Corp.** | 175 | 1 | 175 | 175 | 0 | 163 | 12 | 0 |
| Kimbro Oil Co | 38 | 1 | 25 | 0 | 38 | 32 | 6 | 0 |
| Kingston Oil Supply Corp | 62 | 1(O) | 62 | 52 | 10 | 56 | 4 | 2 |
| Kirschner Bros. Oil Co | 35 | 2 | 35 | 0 | 35 | 5 | 25 | 0 |
| **Kittie Petroleum Inc.** | 15 | 1 | 15 | 15 | 0 | 0 | 15 | 0 |
| **Kocolene Oil Corp.** | 78 | 8 | 78 | 68 | 10 | 0 | 78 | 0 |
| **Krause Gentle Oil Corp.** | 57 | 1 | 57 | 0 | 0 | 4 | 53 | 0 |
| Kwik Shop Inc. | 100 | 3 | 100 | 98 | 2 | 0 | 98 | 2 |
| Land O' Lakes (IA) (xxx) | 393 | 6 | 254 | 251 | 3 | 250 | 4 | 0 |
| Landsea Oil Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **LePaul Oil Co.** | 14 | 4 | 14 | 14 | 0 | 5 | — | — |
| **Lido Co. of New England** | 85 | 3 | 55 | 85 | 0 | 25 | 20 | 40 |
| **MFA Oil Co.** | 200 | 2 | 200 | 200 | 0 | 195 | 5 | 0 |
| Macmillan Ring-Free Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Major Brands Distrib. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Marathon Petroleum Co. | 2.210 | 5 | 2.192 | 684 | 1.508 | 503 | 0 | 0 |
| **Marshall Oil Co.** | 50 | 1 | 50 | 0 | 0 | 10 | 8 | 32 |
| **Mauger & Co.** | 44 | 2 | 44 | 44 | 0 | 28 | 16 | 0 |
| **McCall Oil & Chemical Corp.** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| McDowell Oil Service | 28 | 1 | 28 | 28 | 0 | 3 | 0 | 25 |
| Merchants Oil | 60 | 2 | 40 | 40 | 0 | 19 | 21 | 0 |
| Mercury Oil Co | 160 | 1 | 160 | 160 | 0 | 160 | 0 | 0 |
| **Merritt Truax** | 60 | 1 | 38 | 38 | 0 | 27 | 6 | 5 |
| **Mico Oil Co.** | 24 | 10 | 24 | 0 | 24 | — | — | — |
| **Mid Continent Systems** | 45 | 6 | 45 | 45 | 0 | 15 | 15 | 15 |
| Mid-Missouri Oil Co. | 6 | 1 | 1 | 1 | 0 | (x) | (x) | (x) |
| Mid-States Petroleum | 75 | 3 | 75 | 75 | 0 | 51 | 24 | 0 |
| Miller Enterprises | 39 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Miller C. Holmes** | (x) | 9 | (x) | (x) | (x) | (x) | (x) | (x) |
| **Miller Oil Co. (OH)** | 4 | 1 | 4 | 4 | 0 | 3 | 1 | 0 |
| **Miller Oil Co. (VA)** | 52 | 1 | 52 | 52 | 0 | 31 | 15 | 6 |
| Minuteman Service | 356 | 3 | 356 | 356 | 0 | 0 | 356 | 0 |
| Missouri Terminal Oil Co | 16 | 1 | NA | 16 | 0 | 4 | — | — |
| Monarch Oil & Supply Co | 28 | 1 | 28 | 28 | 0 | 27 | 1 | 0 |
| **Morton Oil Marketing** | 92(T) | 11 | 92 | 92 | 0 | 1 | 91 | 0 |
| **Munford, Inc.** | 471 | 14 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Musket Corp. (xxx)** | 120 | 9 | 120 | 120 | 0 | 0 | 120 | 0 |
| National Convenience Stores | 60 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| National Oil & Gas | 84(V) | 2 | 66 | 0 | 66 | 32 | 3 | 31 |
| Newell Oil Co. | 12 | 1 | 12 | 0 | 12 | 9 | 1 | 2 |
| **Noco Energy Corp.** | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Oasis Petroleum Corp.** | 125 | — | — | — | — | — | — | — |
| **Osceola Refining Co.** | 10 | 1 | 10 | 10 | 0 | 0 | 10 | 0 |
| Pacer Oil Co. | 17 | 2 | 17 | — | — | — | — | — |
| Pacific Northern Oil Corp. | 44 | 1 | 40 | 44 | 0 | 18 | 11 | 13 |
| Parker Oil Co. | 250 | 2 | 8 | 8 | 0 | 8 | 0 | 0 |
| **Curtis Parker Oil Co.** | 45 | 1 | 15 | 13 | 2 | 15 | 0 | 0 |
| **Peavy Oil Co.** | 4 | 1 | 4 | 4 | 0 | 2 | 2 | 0 |
| **Pester Corp.** | 205 | 10 | 205 | 205 | 0 | 0 | 205 | 0 |
| Petroleum Marketers Inc. | 31 | — | — | — | — | — | — | — |
| Petroleum Products Corp. | 6 | 1 | 6 | 6 | 0 | 0 | 0 | 0 |

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(K) Includes Vista.

(L) Includes Hudson Stations Inc., Hudson Van Oil of Kansas City Inc., Hudson Oil Co., Hudson Van Oil Co., Hudson Van Oil of Florida Inc., Hudson Petroleum, Hudson Co. of California Inc.

(M) Includes Decatour Oil Co.

(O) Includes Amos Post, Inc., Paramount Oil Corp.

# Product Distribution (cont'd.)

| | | | BRANDED JOBBERS | | | | COMMISSION AGENTS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NUMBER SELLING . . . | | | | NUMBER SELLING . . . | | |
| Full service only | Self-service only | Self-service/ full service | Total | Gasoline only | Fuel oil only | Gasoline/ fuel oil | Total | Gasoline only | Fuel oil only | Gasoline fuel oil |
| (x) | 94 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | 190 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| — | — | 80 | — | — | — | — | — | — | — | — |
| 0 | 307 | 0 | 28 | 28 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 3 | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 130 | 0 | 30 | 112 | 0 | 0 | 112 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23 | 1 | 12 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| NA | NA | NA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| — | — | — | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 18 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | — | — | — |
| 20 | 0 | 20 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 12 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 175 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 5 | 33 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 44 | 3 | 15 | 3 | 1 | 0 | 2 | 0 | 0 | 0 | 0 |
| 20 | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 13 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 9 | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 43 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 132 | 42 | 80 | 312 | 27 | 0 | 285 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 75 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100 | 0 | 100 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 830 | 73 | 1,289 | 86 | 0 | 6 | 80 | 0 | 0 | 0 | 0 |
| 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 | 16 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 38 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 6 | 6 | 12 | NA | — | — | — | 0 | 0 | 0 | 0 |
| 0 | 15 | 30 | 0 | 0 | 0 | 0 | 15 | 15 | 0 | 0 |
| (x) | (x) | (x) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25 | 30 | 20 | 2 | 0 | 0 | 2 | 3 | 0 | 0 | 3 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | 6 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100 | 156 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 26 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | — | — | — |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | 0 | 44 | 1 | 0 | 0 | 1 | 17 | 0 | 0 | 17 |
| 1 | 5 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| — | — | — | — | — | — | — | — | — | — | — |
| 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 2 |
| 4 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| 0 | 199 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| — | — | — | — | — | — | — | — | — | — | — |
| 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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(P) Includes North Iowa Oil Co.
(Q) Includes MFA Petroleum Co., Mid-South Div.
(R) Includes Sello, Reelo, Hi-Val, Big-Bi, Lo-Lo.

(S) Total wholesale distributing plants, including terminals.
(T) Includes Martin Oil of Indiana Inc., Martin 4-Min. Auto Salon, Inc.
(V) Includes National Oil Corp, National E & R. Inc.

| BULK PLANTS | | | | TERMINALS | | | | |
|---|---|---|---|---|---|---|---|---|
| | COMPANY OPERATED | | | | COMPANY OPERATED | | | |
| Total | Salary operated | Commission operated | Jobber operated bulk plants | Total | Salary operated | Commission operated | Jobber operated terminals | INDEPENDENT OIL COMPANIES AND SELECTED OIL JOBBERS |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Gasco Gasoline** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Gastown** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Gate Petroleum Co.** |
| 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | Gem Petroleum |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | General Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Giant Industries Inc. |
| 2 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | **Golden Gate Petroleum** |
| 1 | (x) | (x) | (x) | 0 | 0 | 0 | 0 | **Gresham Petroleum** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Jack Griffith Petroleum Prods.** |
| (x) | (x) | (x) | 285 | 3 | 3 | 0 | 0 | Growmark Inc. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Gull Industries |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Harrell Petroleum |
| 3 | — | — | — | 0 | 0 | 0 | 0 | **Harris Enterprises** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Highland Petroleum Inc.** |
| 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | **Angus I. Hines Inc.** |
| 1 | NA | NA | NA | 0 | 0 | 0 | 0 | Hinkle Distributors |
| 3 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | Barney Holland Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Holland Oil Co. (OH) |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Hop-In Food Stores** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Hornet Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Hub Langie Fuel Corp.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Hudson Oil Co. & Affiliated Oil Cos. (L) |
| 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | Hughes Oil Co. |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | Hull Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **J & L Oil Inc.** |
| 0 | — | — | — | 0 | — | — | — | **J. S. & J. Service Inc.** |
| 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | **Johnson Products** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Jones Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Kaibab Industries |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | Kellet Oil Co. |
| 5 | 5 | 5 | — | 0 | 0 | 0 | 0 | **Kenan Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Kickapoo Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Kimber-Allen Petroleum Corp.** |
| 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | Kirnbro Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Kingston Oil Supply Corp. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Kirschner Bros. Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Kittie Petroleum Inc.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Kocolene Oil Corp.** |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **Krause Gentle Oil Corp.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Kwik Shop Inc. |
| 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | Land O' Lakes (IA) (xxx) |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Landsea Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **LePaul Oil Co.** |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **Lido Co. of New England** |
| 119 | 90 | 29 | 10 | 0 | 0 | 0 | 0 | **MFA Oil Co.** |
| 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | Macmillan Free-Ring Oil |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Major Brands Distrib. |
| 253 | 1 | 0 | 1 | 50 | 50 | 0 | 0 | Marathon Petroleum Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Marshall Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Mauger & Co.** |
| 4 | (x) | (x) | (x) | 4 | 4 | 0 | 0 | **McCall Oil & Chemical Corp.** |
| 1 | (x) | (x) | (x) | 0 | 0 | 0 | 0 | McDowell Oil Service |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | Merchants Oil |
| 2 | NA | NA | NA | 0 | 0 | 0 | 0 | Mercury Oil Co. |
| 6 | (x) | (x) | (x) | 0 | 0 | 0 | 0 | **Merritt Truax** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Mico Oil Co.** |
| 4 | 4 | 0 | 0 | 4 | 4 | 0 | 0 | **Mid Continent Systems** |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | Mid-Missourio Oil Co. |
| 7 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | Mid-States Petroleum |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Miller Enterprises |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | **Miller & Holmes** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Miller Oil Co. (OH)** |
| 3 | (x) | (x) | (x) | 1 | (x) | (x) | (x) | **Miller Oil Co. (VA)** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Minuteman Service |
| 0 | 0 | 0 | 0 | 1 | — | — | — | Missouri Terminal Oil Co. |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Monarch Oil & Supply Co. |
| 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | **Morton Oil Marketing** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Munford, Inc.** |
| 0 | — | — | 0 | 0 | — | — | 0 | **Musket Corp. (xxx)** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | National Convenience Stores |
| 11 | 0 | 11 | 11 | 0 | 0 | 0 | 0 | National Oil & Gas |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | Newell Oil Co. |
| 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | **Noco Energy Corp.** |
| — | — | — | — | — | — | — | — | **Oasis Petroleum Corp.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Osceola Refining Co.** |
| 1 | — | — | — | 0 | 0 | 0 | 0 | Pacer Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Pacific Northern Oil Co. |
| 7 | 7 | 0 | 0 | 1 | 1 | 0 | 0 | Parker Oil Co. |
| 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | **Curtis Parker Oil Co.** |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **Peavy Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Pester Corp.** |
| — | — | — | — | — | — | — | — | Petroleum Marketers Inc. |
| 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | Petroleum Products Corp. |

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(W) Includes Aero Oil Co., Jobber bulk stations, jobber marinas.
(Y) Includes All Suns
(Z) Includes Corner Food Stores Inc., Paul Oil Co. Inc.

(AA) Includes Mission Trail Oil Co.
(BB) Includes Rebel Quik-Mart.
(DD) Includes Gas Pumpers of America Corp.

# How Oil Companies Handle

| INDEPENDENT OIL COMPANIES AND SELECTED OIL JOBBERS | TOTAL BRANDED RETAIL OUTLETS* | TOTAL NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED† | BRANDED SERVICE STATIONS | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Total true branded service stations | Supplied directly | Supplied through jobbers and commission agents | Lessee/dealer operated | Salary operated | Commission operated |
| **Petroleum Sales & Service** | 4 | 1 | 4 | 4 | 0 | 3 | 1 | 0 |
| **Phillips Fuel Co.** | 80 | 1 | 80 | 80 | 0 | 79 | 1 | 0 |
| **Piasa Motor Fuels Inc.** | 25 | 2 | 24 | 24 | 0 | 16 | 8 | 0 |
| Pilot Oil Corp. | 101 | 11 | 101 | 101 | 0 | 0 | 101 | 0 |
| Port Oil Co. | 58 | 2 | 58 | 58 | 0 | 0 | 58 | 0 |
| Power Test Corp. | 475(Y) | 5 | 475 | 475 | 0 | 350 | 125 | 0 |
| **Pride Oil Co. (TN)** | 12 | 1 | 12 | 12 | 0 | 0 | 12 | 0 |
| **Pride Oil Co. (MS)** | 25 | 2 | 25 | 25 | 0 | 3 | 1 | 21 |
| **Private Brand Services** | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 |
| W. H. Pugh Oil Co. | 15 | 1 | 15 | 15 | 0 | 9 | 6 | 0 |
| Pyramid Oil Co. | 45 | 1 | 45 | 45 | 0 | 45 | 0 | 0 |
| Quaker State Oil Ref. Corp. | 202 | 4 | 150 | 7 | 143 | 0 | 0 | 0 |
| **Quality Oil Co.** | 110 | 2 | 71 | 71 | 0 | 71 | 0 | 0 |
| **Quincy Oil** | 5 | 1 | 5 | 3 | 2 | — | — | — |
| **Quartrup Petroleum Co.** | 7 | 1 | 4 | 0 | 7 | 4 | 3 | 0 |
| Reinaur Petroleum Co. | 43 | 1 | 43 | 43 | 0 | 43 | 0 | 0 |
| Reinhardt Oil Corp. | 35(Z) | 1 | 10 | 10 | 0 | 7 | 0 | 3 |
| Research Fuels Inc. | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| **R. I. Marketing, Inc. (TT)** | 202 | NA | NA | 0 | 202 | — | — | — |
| **River Oil Co.** | 23 | 1 | 20 | 20 | 0 | 20 | 0 | 0 |
| **Robinson Oil Co.** | 22(AA) | 1 | 22 | 22 | 0 | 0 | 22 | 0 |
| Rocket Oil Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ross Resources Inc. | 20 | 2 | 20 | 19 | 1 | 8 | 12 | 0 |
| Sahara Oil Co. | 23(BB) | 1 | 23 | 23 | 0 | 0 | 23 | 0 |
| **Santee Oil Co.** | 58 | 1 | 12 | 12 | 0 | 8 | 4 | 0 |
| **Schaeffer Oil** | 26 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Sears Oil Co.** | 12 | 1 | 12 | 12 | 0 | 11 | 1 | 0 |
| Self-Service Oil Co. | 18 | 4 | 18 | 18 | 0 | 0 | 18 | 0 |
| Shelby Petroleum Corp. | 20 | 2 | 20 | 20 | 0 | 0 | 20 | 0 |
| Shell Oil Co. | 12,147 | 40 | 5,124 | 5,124 | 0 | 4,894 | 230 | 0 |
| **Shotmeyer Bros. Petroleum** | 70 | 1 | 70 | 70 | 0 | 70 | 0 | 0 |
| **Shotmeyer Oil Corp.** | 36(DD) | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| **SICO Co.** | 145 | 2 | 64 | 64 | 0 | 46 | 18 | 0 |
| Simon Oil Co. | 125 | 1 | 110 | 110 | 0 | 117 | 8 | 0 |
| Sing Oil Co. | 75 | 4 | 25 | 25 | 0 | 25 | 50 | 0 |
| Smith-Shafer Oil Co. (EE) | 8 | 2 | 8 | 8 | 0 | 0 | 7 | 1 |
| **Somerset Refinery** | 30 | 1 | 30 | 30 | 0 | 6 | 8 | 16 |
| **Southern Counties Oil Co.** | 4 | 1 | 4 | 4 | 0 | 0 | 4 | 0 |
| **Southern Union Ref. Co.** | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| Southland Oil Co. | 50 | 1 | 50 | 50 | 0 | 30 | 0 | 20 |
| Speedway Petroleum Co. | 18 | 2 | 18 | — | — | — | — | — |
| The Spencer Companies | 103(FF) | 1 | 21 | 0 | 21 | 11 | 10 | 0 |
| **M. Spiegel & Sons Oil Corp.** | 34(HH) | 1 | 34 | 34 | 0 | 34 | 0 | 0 |
| **Standard Cycle & Auto Supply Co. (SCASCO)** | 40 | 1 | 40 | 40 | 0 | 31 | 6 | 3 |
| **Star Oil Co.** | 58 | 1 | 58 | — | — | 58 | 0 | 0 |
| Star Service & Petroleum | 156(II) | 15 | 156 | 156 | 0 | 0 | 0 | 0 |
| Steuart Petroleum Co. (xxx) | 6 | 1 | 6 | 6 | 0 | 0 | 0 | 0 |
| J. D. Streett & Co. | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| **Stormy Oil Co.** | 7 | 1 | 7 | 7 | 0 | 7 | 0 | 0 |
| **Sunshine Jr. Stores** | 322 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Tanner Oil** | 97(KK) | 3 | 86 | 86 | 0 | 1 | 84 | 1 |
| Target Enterprises (CA) | 100 | 1 | 100 | 0 | 100 | 0 | 100 | 0 |
| A. Tarricone (ATI) | 150 | 3 | NA | — | — | — | — | — |
| Taylor Oil Co. | 57 | 2 | 57 | 57 | 0 | 0 | 0 | 57 |
| **Tesoro Petroleum** | 91 | 2 | 91 | 21 | 70 | 70 | 21 | 0 |
| **Thornhill Oil Co.** | 23 | 1 | 23 | 0 | 23 | 21 | 4 | 0 |
| **Time Oil Co.** | 240 | 5 | NA | 240 | 0 | NA | NA | NA |
| Tommy Oil Co. | 27 | 11 | 27 | 27 | 0 | 0 | 27 | 0 |
| Tooley Oil Co. | 10 | 2 | 10 | 10 | 0 | 0 | 10 | 0 |
| Tosco Corp. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total Petroleum** | 1,863(MM) | 22 | 1,863 | 483 | 1,380 | 1,380 | 483 | 0 |
| **Town Pump** | 61 | 1 | 61 | 61 | 0 | 0 | 61 | 0 |
| **Transit Oil Co.** | 15 | 2 | 15 | 15 | 0 | NA | NA | NA |
| Travelers Petroleum | 83 | 3 | 9 | 9 | 0 | 0 | 9 | 0 |
| Trenton Oil Co. | 50 | 1 | 50 | 50 | 0 | 50 | 0 | 0 |
| Triton Inc. | 42 | 4 | 42 | 42 | 0 | 1 | 40 | 1 |
| **Truax Corp.** | 65 | 2 | 65 | 65 | 0 | 10 | 50 | 5 |
| **Ultramar Petroleum** | 2 | 1 | 2 | 2 | 0 | 0 | 2 | 0 |
| **United States Oil Co.** | 5 | 1 | 5 | 5 | 0 | 1 | — | — |
| Wake Up Oil Co. | 43 | 1 | 43 | 43 | 0 | 1 | 42 | 0 |
| Warelubco Inc. | 92 | (x) | NA | 92 | 0 | — | — | — |
| Webster Companies | 18 | 1 | 18 | 18 | 0 | 10 | 8 | 0 |
| **West Penn Oil Co.** | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| **Western Marketing** | 25 | 1 | 25 | 25 | 0 | 2 | 23 | 0 |
| **Wickland Oil Co.** | 85 | 3 | 85 | 85 | 0 | 85 | 0 | 0 |
| Willard Oil Co. | 25 | 1 | 25 | 25 | 0 | 0 | — | — |
| A. T. Williams Oil | 67 | 2 | 67 | (x) | (x) | (x) | (x) | (x) |
| J. H. Williams Oil | 87(NN) | 1 | 87 | 83 | 4 | 83 | 3 | 1 |
| **York Oil Co.** | 14 | 1(OO) | 0 | 0 | 0 | 0 | 0 | 0 |
| **Young Oil** | 11 | 1 | 11 | 11 | 0 | 9 | 2 | 0 |
| **Zarda Bros.** | 19 | 2 | 8 | 14 | — | — | — | — |
| Zephyr Inc. | 50 | 2 | 40 | 40 | 0 | 0 | 40 | 0 |

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(EE) Unbranded.
(FF) Includes Watkins Oil Co., Fuller Oil Co., Hicks Oil Co.
(GG) Includes sub-jobbers.

(HH) SOS Oil Corp.
(II) Includes Pep Gas & Wash.
(JJ) Includes Sun Refining & Marketing Co., Herr Gas & Oil Co., Mid-State Oil Co..

# Product Distribution (cont'd.)

| | | | BRANDED JOBBERS | | | | COMMISSION AGENTS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NUMBER SELLING . . . | | | | NUMBER SELLING . . . | | |
| Full service only | Self-service only | Self-service/ full service | Total | Gasoline only | Fuel oil only | Gasoline/ fuel oil | Total | Gasoline only | Fuel oil only | Gasoline/ fuel oil |
| 0 | 0 | 4 | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 0 |
| 80 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 3 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 97 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 49 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 420 | 25 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 23 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 45 | 0 | 0 | 0 | 0 | 0 | .0 | 0 | 0 | 0 | 0 |
| 140 | 10 | 0 | 55 | 0 | 0 | 55 | 0 | 0 | 0 | 0 |
| 2 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NA | NA | NA | NA | — | — | — | NA | — | — | — |
| 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 17 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 23 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| 2 | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 737 | 1,293 | 3,094 | 596 | 0 | 91 | 505 | 0 | 0 | 0 | 0 |
| 70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50 | 12 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 81 | 14 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | 35 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 30 | 30 | 17 | 0 | 13 | 0 | 0 | 0 | 0 |
| 0 | 4 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| — | — | — | — | — | — | — | — | — | — | — |
| 1 | 15 | 5 | 4(GG) | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25 | 6 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| — | — | — | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 156 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 143 | 1 | 73 | 73 | 0 | 0 | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 0 | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 100 | 0 | 0 | 0 | 0 | 0 | (x) | (x) | (x) | (x) |
| — | — | — | — | — | — | — | — | — | — | — |
| 0 | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 17 | 74 | 11 | 11 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | 5 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| — | — | — | — | — | — | — | NA | NA | NA | NA |
| 9 | 3 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 683 | 1,180 | 1,380 | 0 | 0 | 1,380 | 0 | 0 | 0 | 0 |
| 0 | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 12 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 9 | 0 | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 40 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 5 | 87 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 0 | 23 | 2 | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| 1 | 84 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | 8 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | 3 | 49 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 |
| 6 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | 30 | 0 | 5 | 0 | 0 | 5 | 3 | (x) | (x) | (x) |

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Stop-N-Go Foods, Inc., Montour Auto Service Co., Inc., Mascot Petroleum Co.
(KK) Includes Rich of Ohio, Rich of West Virginia, Tanco Inc., and Rich Oil Corp.
(LL) Includes Tenneco Oil Co., Directo Oil Corp., Q-S Petroleum Inc., TLC Oil Co.

(MM) Includes Huron Valley Oil Co.
(NN) Includes Pioneer Oil Co., 76 Mini Mart.
(OO) Includes Easy Go Stores.

# Product Distribution (cont'd.)

| BULK PLANTS | | | | TERMINALS | | | | |
|---|---|---|---|---|---|---|---|---|
| | COMPANY OPERATED | | | | COMPANY OPERATED | | | |
| Total | Salary operated | Commission operated | Jobber operated bulk plants | Total | Salary operated | Commission operated | Jobber operated terminals | INDEPENDENT OIL COMPANIES AND SELECTED OIL JOBBERS |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Petroleum Sales & Service** |
| 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | **Phillips Fuel Co.** |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **Piasa Motor Fuels Inc.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Pilot Oil Corp. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Port Oil Co. |
| 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | Power Test Corp. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Pride Oil Co. (TN)** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Pride Oil Co. (MS)** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Private Brand Services** |
| 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | W. H. Pugh Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Pyramid Oil Co. |
| 3 | 1 | 0 | 2 | 3 | 3 | 0 | 0 | Quaker State Oil Ref. Corp. |
| 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | **Quality Oil Co.** |
| 0 | 0 | 0 | 0 | 9 | — | — | — | **Quincy Oil** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Quartrup Petroleum Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Reinaur Petroleum Co. |
| 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | Reinhardt Oil Corp. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Research Fuels Inc. |
| NA | — | — | — | NA | — | — | — | **R. I. Marketing, Inc. (TT)** |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **River Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Robinson Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Rocket Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Ross Resources Inc. |
| 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | Sahara Oil Co. |
| 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | **Santel Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Schaeffer Oil** |
| 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | **Sears Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Self-Service Oil Co. |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | Shelby Petroleum Corp. |
| 781 | 89 | 0 | 692 | 14 | 14 | 0 | 0 | Shell Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Shotmeyer Bros. Petroleum** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Shotmeyer Oil Corp.** |
| 11 | 11 | 0 | 0 | 1 | 1 | 0 | 0 | **SICO Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Simon Oil Co. |
| 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | Sing Oil Co. |
| 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | Smith-Shafer Oil Co. (EE) |
| 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | **Somerset Refinery** |
| 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | **Southern Counties Oil Co.** |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | **Southern Union Ref. Co.** |
| 8 | 0 | 8 | 0 | 1 | 1 | 0 | 0 | Southland Oil Co. |
| 3 | 3 | 0 | 0 | — | — | — | — | Speedway Petroleum Co. |
| 3 | 0 | 0 | 3 (GG) | 0 | 0 | 0 | 0 | The Spencer Companies |
| 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | **M. Spiegel & Sons Oil Corp.** |
| 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | **Standard Cycle & Auto Supply Co. (SCASCO)** |
| 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | **Star Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Star Service & Petroleum |
| 2 | 2 | 0 | 0 | 4 | 4 | 0 | 0 | Steuart Petroleum Co. (xxx) |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | T. D. Streett & Co. |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Stormy Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Sunshine Jr. Stores** |
| 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | **Tanner Oil** |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | Target Enterprises |
| 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | A. Tarricone (ATI) |
| 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | Taylor Oil Co. |
| 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | **Tesoro Oil** |
| 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | **Thornhill Oil Co.** |
| — | — | — | — | 8 | 8 | 0 | 0 | **Time Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Tommy Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Tooley Oil Co. |
| 0 | 0 | 0 | 0 | 75 | 11 | 64 | 0 | Tosco Corp. |
| 10 | 2 | 0 | 8 | 6 | 6 | 0 | 0 | **Total Petroleum** |
| 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | **Town Pump** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Transit Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Travelers Petroleum |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Trenton Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Triton Inc. |
| 7 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | **Truax Corp.** |
| 9 | 9 | 0 | (x) | 15 | 15 | 0 | (x) | **Ultramar Petroleum** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **United States Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Wake Up Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Warelubco Inc. |
| 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | Webster Companies |
| (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | **West Penn Oil Co.** |
| 2 | 2 | 0 | (x) | (x) | (x) | (x) | (x) | **Western Marketing** |
| 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | **Wickland Oil Co.** |
| 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | Willard Oil Co. |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | A. T. Williams Oil |
| 4 | 3 | 1 | 0 | (x) | (x) | (x) | (x) | J. H. Williams Oil |
| 3 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | **York Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Young Oil Co.** |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **Zarde Bros.** |
| 6 | 0 | 3 | 3 | 2 | 2 | 0 | 0 | Zephyr Inc. |

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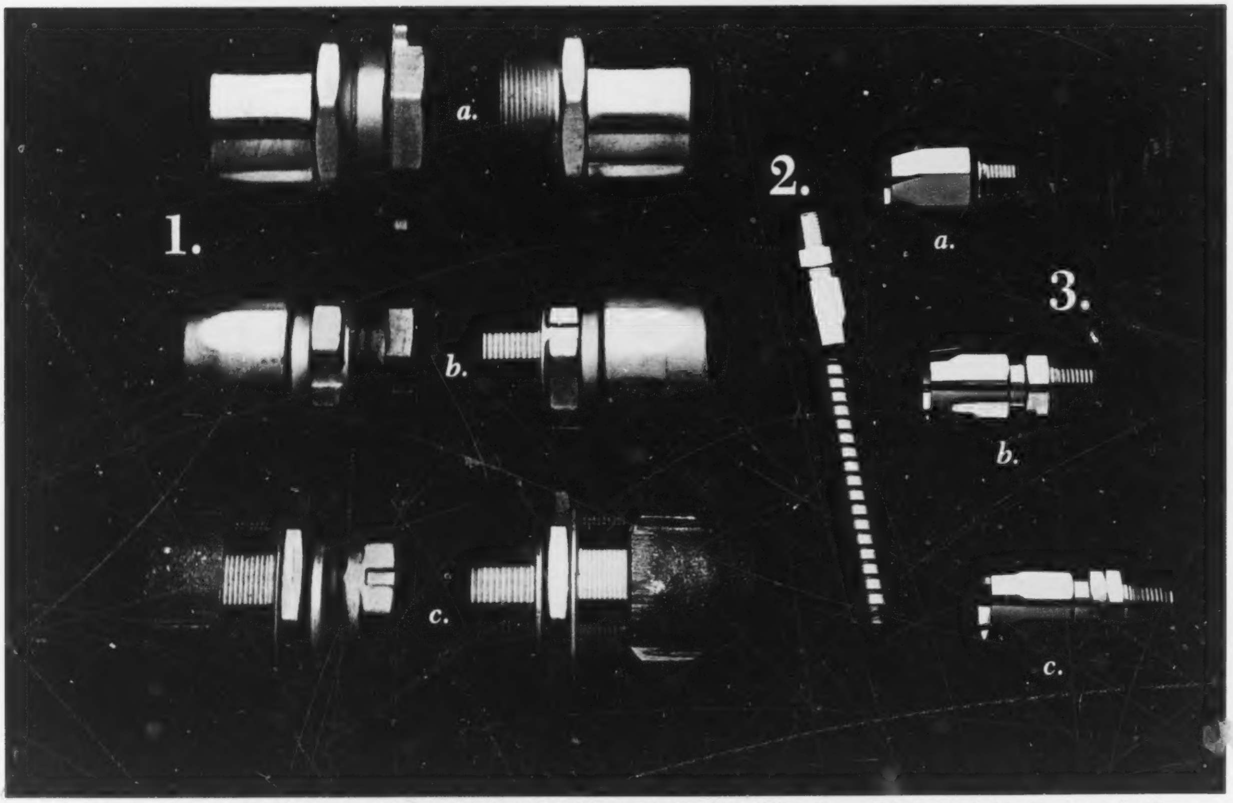
(PP) Approximately.
(QQ) 11,468 jobber-operated stations.
(RR) Terminals and bulk plants.

(TT) Formerly Golden Imperial, merged into Rock Island Refining Corp.
(UU) Purchased Inter City Oil Co. of St. Cloud.
Source: NPN questionnaires.

# Century Couplings: Setting the standards for the Industry



*1. Fuel Oil Couplings. a. 520-H Permanent, ¾" to 4" b. Dubl-Grip® Reattachable, 1" to 1½" c. Super-Grip Reattachable, Compression-Type, ¾" to 4" 2. Spring Guards. Internal Guard for Gas Pump Coupling, ⅝", ¾", 1" 3. Gas Pump Couplings. a. 570-H Permanent, ⅝", ¾", 1" b. Dubl-Grip® Reattachable, ⅝", ¾", 1" c. Dubl-Grip® Swivel Reattachable, ⅝", ¾", 1".*

## The best couplings on the market are backed by a century of experience.

Since the time when cars had model letters instead of resort names, we've been making the finest permanent and reattachable gasoline pump and fuel oil couplings. We've led the world with features like Dubl-Grip®, that clings to the hose without squeezing or weakening it. We've invented special attaching equipment. And we created a special serrated interior chamber for our permanent couplings that locks in the hose and prevents leakage or wicking. At Century, we plan to go on innovating and bringing you the best quality couplings . . . until another Century comes along.

Century Brass Products Inc., 59 Mill Street, Waterbury,
CT 06720. (203) 574-7700
TWX 710-477-0548

PEI

**Couplings by**
**century**
**BRASS PRODUCTS INC.**

# Branded Retail Outlets

| Company | TOTAL BRANDED RETAIL OUTLETS* | TOTAL NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED† | New England | | | | | | Middle Atlantic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Maine | N.H. | Vt. | Mass. | R.I. | Conn. | N.Y. | N.J. | Pa. |
| Agway Petroleum Corp. | 187(B) | 9 | 8 | 6 | 11 | 11 | 1 | 3 | 91 | 13 | 43 |
| American Petrofina | 4,037 | 20 | — | — | — | — | — | — | — | — | — |
| Ashland Oil, Inc. | 187 | 7 | — | — | — | — | — | — | — | — | 3 |
| Atlantic Richfield Co. | 4,363 | 24 | — | 10 | 12 | 205 | 67 | 132 | 320 | 155 | 1,116 |
| The Augsbury Org. | 115 | 2 | — | — | 8 | — | — | — | 107 | — | — |
| Automatic Comfort Corp. | 52 | 1 | — | — | — | — | — | 52 | — | — | — |
| Avalon Petroleum | 1 | 1 | — | — | — | — | — | — | — | — | — |
| Bagwell Oil Co. | 16 | 2 | — | — | — | — | — | — | — | — | — |
| Best Oil Inc. | 18 | 1 | — | — | — | — | — | — | — | — | 18 |
| Browning Oil Co. | 17 | 1 | — | — | — | — | — | — | — | — | — |
| Bursaw Oil Corp. | 40 | 2 | — | 3 | — | 37 | — | — | — | — | — |
| By-Lo Oil Co. | 4 | 1 | — | — | — | — | — | — | — | — | — |
| CSC Oil Co. | 22 | 2 | — | — | — | — | — | — | — | — | — |
| Campbell Oil Co. | 75 | 1 | — | — | — | — | — | — | — | — | — |
| Cannon Oil Corp. | 17 | 3 | — | — | — | — | — | — | — | — | — |
| Cardon Oil Co. | 50 | 5 | — | — | — | — | — | — | — | — | — |
| Cel Oil Products Corp. | 16 | 1 | — | — | — | — | — | — | — | — | — |
| Cenex (xxx) | 1,117 | 14 | — | — | — | — | — | — | — | — | — |
| Center Independent Oil Co. | 15 | 1 | — | — | — | — | — | — | — | — | 15 |
| Certified Oil Co. | 200 | 3 | — | — | — | — | — | — | — | — | — |
| Chevron U.S.A. | 12,111 | 39 | 91 | 22 | — | 67 | 11 | 203 | 521 | 249 | 207 |
| Cibro Petroleum | 104 | 1 | — | — | — | — | — | — | 104 | — | — |
| Citgo Petroleum Corp. (A) | 3,915 | 31 | 158 | 70 | 55 | 162 | 5 | 82 | 392 | 252 | 82 |
| Coen Oil Co. | 350 | 3 | — | — | — | — | — | — | — | — | 130 |
| Colonial Oil Ind. Inc. | 65 | 3 | — | — | — | — | — | — | — | — | — |
| Comet Oil Co. | 4 | 2 | — | — | — | — | — | — | — | — | — |
| Conna Corp. | 267 | 9 | — | 4 | — | — | — | — | 13 | — | — |
| Conoco Inc. | 5,091 | 40 | — | — | — | — | — | — | 11 | 7 | 17 |
| Crown Central Petroleum Corp. | 200(C) | 8 | — | — | — | — | — | — | (x) | (x) | (x) |
| Crystal Flash Petroleum Corp. | 17 | 1 | — | — | — | — | — | — | — | — | — |
| Crystal/USA Oil Co. | 79 | 5 | — | — | — | — | — | — | — | — | — |
| K. E. David Ltd. | 20 | 1 | — | — | — | — | — | — | — | — | 20 |
| Davis-Howland Oil Inc. | 1 | 1 | — | — | — | — | — | — | 1 | — | — |
| DeBlois Oil Co. | 50 | 2 | — | — | — | 12 | 38 | — | — | — | — |
| Derby Refining Co. | 529 | 12 | — | — | — | — | — | — | — | — | — |
| Diamond Shamrock Corp. | 1,993 | 25 | — | — | — | — | — | — | 4 | — | 2 |
| Dixie Oil Co. | 97 | 3 | — | — | — | — | — | — | — | — | — |
| Drake's Refinery Stations | 11 | 1 | — | — | — | — | — | — | — | — | — |
| East Coast Oil Corp. | 32 | 1 | — | — | — | — | — | — | — | — | — |
| Englefield Oil Co. | 152 | 2 | — | — | — | — | — | — | — | — | — |
| Este Oils Co. | 25 | 1 | — | — | — | — | — | — | — | — | — |
| Exxon Co. U.S.A. | 18,707 | 41 | 262 | 102 | 1 | 296 | 45 | 187 | 478 | 765 | 1,149 |
| FCX, Inc. | 98 | 2 | — | — | — | — | — | — | — | — | — |
| Farmland Industries | 1,100 | 15 | — | — | — | — | — | — | — | — | — |
| Farm Stores | 250 | 1 | — | — | — | — | — | — | — | — | — |
| Fireline Petroleum | 500 | 11 | 36 | 29 | 9 | 129 | 46 | 56 | 65 | 24 | 5 |
| Fisca Oil Co. | 102 | 22 | — | — | — | — | 1 | 3 | — | 3 | 10 |
| Don Foster Oil Co. | 30 | 1 | — | — | — | — | — | — | — | — | — |
| Gas-N-Go | 1 | 1 | — | — | — | — | — | — | — | — | — |
| Gastown | 196 | 1 | — | — | — | — | — | — | — | — | — |
| Gate Petroleum Co. | 80 | 8 | — | — | — | — | — | — | — | — | — |
| Gem Petroleum | 307 | 2 | — | — | — | — | — | — | — | — | — |
| Getty Ref. & Marketing Co. (xxx) | 4,494 | 28 | 99 | 79 | 71 | 253 | 68 | 166 | 551 | 470 | 205 |
| Gresham Petroleum Co. | 12 | 1 | — | — | — | — | — | — | — | — | — |
| Gulf Ref. & Marketing Co. | 15,103 | 33 | 226 | 145 | 104 | 290 | 63 | 148 | 429 | 600 | 871 |
| Angus I. Hines Inc. | 60 | 1 | — | — | — | — | — | — | — | — | — |
| Holland Oil Co. (OH) | 53 | 1 | — | — | — | — | — | — | — | — | — |
| Hop-In Food Stores | 112 | 3 | — | — | — | — | — | — | — | — | — |
| Hudson Oil Co. & Affiliated Cos. | 235 | 27 | — | — | — | — | — | — | (x) | — | (x) |
| Hughes Oil Co. | 110 | 1 | — | — | — | — | — | — | — | — | — |
| Hull Oil Co. | 20 | 2 | — | — | — | — | — | — | — | — | — |
| Inter-City Oil Co. of St. Cloud (E) | | | | | | | | | | | |
| J & L Oil Inc. | 65 | 3 | — | — | — | — | — | — | — | — | — |
| Johnson Products | 40 | 5 | 23 | 8 | 4 | 1 | — | — | 4 | — | — |
| Kenan Oil Co. | 27 | 1 | — | — | — | — | — | — | — | — | — |
| Kerr-McGee Ref. Corp. | 1,785 | 21 | — | — | — | — | — | — | — | — | — |
| Kickapoo Oil Co. | 55 | 1 | — | — | — | — | — | — | — | — | — |
| Kimber-Allen Petroleum Corp. | 175 | 1 | — | — | — | — | — | — | — | 175 | — |
| Kimbro Oil Co. | 38 | 1 | — | — | — | — | — | — | — | — | — |
| Kingston Oil Supply Corp. | 62 | 1 | — | — | — | — | — | — | 62 | — | — |
| Kirschner Bros. Oil Co. | 35 | 2 | — | — | — | — | — | — | — | 15 | 20 |
| Kocolene Oil Corp. | 78 | 8 | — | — | — | — | — | — | — | — | 7 |
| Land O' Lakes (MN) | 392 | 6 | — | — | — | — | — | — | — | — | — |
| LePaul Oil Co. | 14 | 4 | — | — | — | — | — | — | — | — | — |

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*Total branded retail outlets include garages, motels, C-stores, and service stations. By U.S. Census Bureau definition, only establishments generating 50% or more of their income from the sale of petroleum products and services are service stations.

†Total number of states where gasoline is branded includes the District of Columbia.

# in the United States

| South Atlantic | | | | | | | | | East North Central | | | | | East South Central | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Del. | Md. | D.C. | Va. | W.Va. | N.C. | S.C. | Ga. | Fla. | Ohio | Ind. | Ill. | Mich. | Wis. | Ky. | Tenn. | Ala. | Miss. |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 8 | — | 111 | 190 | 542 | 520 | — | — | 3 | — | — | 6 | 247 | 136 | 35 |
| — | — | — | 2 | 25 | — | — | — | — | 61 | 2 | 2 | — | — | 92 | — | — | — |
| 44 | 90 | 4 | 90 | 25 | 1 | — | — | — | 6 | — | 187 | 6 | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — |
| — | 1 | — | 15 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 17 | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | 4 | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | 13 | — | — | — | — | 9 | — | — | — |
| — | — | — | — | — | — | — | — | — | 75 | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | 1 | 2 | — | — | — | — | — | — | — | 14 | — |
| — | — | — | 1 | — | — | — | — | — | — | — | 1 | — | — | — | — | — | — |
| — | — | — | — | — | — | 16 | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | 164 | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | 10 | — | — | — | — | 180 | — | — | — | — | 10 | — | — | — |
| 24 | 45 | — | 21 | 108 | 62 | 104 | 1,092 | 1,144 | 4 | 11 | — | — | — | 1,091 | 138 | 1,062 | 631 |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | 21 | — | 116 | 8 | 174 | 50 | 191 | 407 | 34 | 134 | 252 | 121 | 214 | 32 | 68 | 211 | 70 |
| — | — | — | — | 20 | — | — | — | — | 200 | — | — | — | — | — | — | — | — |
| — | — | — | — | — | 6 | 28 | 31 | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | 2 | 2 | — | — | — | — | — | — | — | — | — | — |
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| 2 | — | — | 33 | 12 | 32 | 20 | 38 | 37 | 54 | 35 | 82 | 50 | 61 | 18 | 62 | 52 | 50 |
| — | (x) | — | (x) | — | (x) | (x) | (x) | — | — | — | — | — | — | — | — | — | — |
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| — | — | — | — | — | — | — | — | — | 25 | — | — | — | — | — | — | — | — |
| 83 | 518 | 59 | 1,053 | 593 | 1,906 | 995 | 631 | 569 | 30 | 1 | — | — | — | — | 959 | 385 | 243 |
| — | — | — | — | — | 84 | 14 | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | 45 | — | 20 | — | — | — | — |
| — | — | — | — | — | — | — | — | 250 | — | — | — | — | — | — | — | — | — |
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| — | — | — | 6 | 2 | 7 | 19 | 12 | 32 | — | — | — | — | — | 11 | 3 | — | — |
| — | — | — | — | — | — | — | 50 | 257 | — | — | — | — | — | — | — | — | — |
| 41 | 51 | — | 1 | — | — | — | — | — | — | — | 90 | 6 | 145 | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 12 |
| 67 | 248 | 30 | 641 | 229 | 1,012 | 552 | 1,039 | 795 | 441 | 42 | — | 10 | — | 537 | 798 | 637 | 509 |
| — | — | — | 60 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | 53 | — | — | — | — | — | — | — | — |
| — | — | — | 53 | — | 42 | — | — | — | — | — | — | — | — | — | 17 | — | — |
| — | (x) | — | (x) | (x) | — | — | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
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| 3 | 3 | — | — | — | — | — | — | — | 20 | 33 | 2 | — | — | 8 | 2 | — | — |
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(xxx) Latest data available. Company either did not respond to the 1984 questionnaire or did not answer all of the questions fully.
(x) Company did not disclose the number of outlets.
(A) Owned by The Southland Corp.

## Branded Retail Outlets (cont'd.)

| | | | New England | | | | | | Middle Atlantic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Company | TOTAL BRANDED RETAIL OUTLETS* | TOTAL NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED† | Maine | N.H. | Vt. | Mass. | R.I. | Conn. | N.Y. | N.J. | Pa. |
| Lido Co. of New England | 85 | 3 | 30 | 45 | — | 10 | — | — | — | — | — |
| M.F.A. Oil Co. | 200 | 2 | — | — | — | — | — | — | — | — | — |
| Main Bros. Oil Co. | 30 | 1 | — | — | — | — | — | — | 30 | — | — |
| Marathon Petroleum Co. | 2,210 | 5 | — | — | — | — | — | — | — | — | — |
| Marshall Oil Co. | 50 | 1 | — | — | — | — | — | — | — | — | — |
| Martin Oil Marketing Ltd. | 92 | 11 | — | — | — | — | — | — | — | — | 3 |
| Mauger & Co. | 44 | 2 | — | — | — | — | — | — | — | — | 41 |
| McDowell Oil Service | 28 | 1 | — | — | — | — | — | — | — | — | 28 |
| Mercury Oil Co. | 160 | 1 | — | — | — | — | — | 160 | — | — | — |
| Mico Oil Co. | 24 | 10 | — | — | — | — | — | — | — | — | — |
| Mid Continent Systems | 45 | 6 | — | — | — | — | — | — | — | — | — |
| Mid-States Petroleum | 75 | 3 | — | — | — | — | — | — | — | — | — |
| Midwest Petroleum Co. | 100 | 2 | — | — | — | — | — | — | — | — | — |
| Miller Enterprises, Inc. | 39 | 1 | — | — | — | — | — | — | — | — | — |
| Miller & Holmes | (x) | 9 | — | — | — | — | — | — | — | — | — |
| Miller Oil Co. (OH) | 4 | 1 | — | — | — | — | — | — | — | — | — |
| Miller Oil Co. (VA) | 52 | 1 | — | — | — | — | — | — | — | — | — |
| Minute Man Service | 356 | 3 | — | — | — | — | — | — | 156 | — | 188 |
| Mobil Oil Corp. | 15,403 | 43 | 261 | 176 | 216 | 638 | 86 | 486 | 2,025 | 467 | 1,191 |
| Monarch Oil & Supply Co. | 28 | 1 | — | — | — | — | — | — | — | — | — |
| Munford, Inc. | 471 | 14 | — | — | — | — | — | — | — | — | — |
| Murphy Oil Corp. | 614 | 14 | — | — | — | — | — | — | — | — | — |
| Musket Corp. | 120 | 1 | — | — | — | — | — | — | — | — | — |
| National Convenience Stores | 60 | 5 | — | — | — | — | — | — | — | — | — |
| National Oil & Gas | 84 | 2 | — | — | — | — | — | — | — | — | — |
| Noco Energy Corp. | 15 | 1 | — | — | — | — | — | — | 15 | — | — |
| Northville Ind. Corp. | 30 | 1 | — | — | — | — | — | — | 30 | — | — |
| Osceola Refining Co. | 10 | 1 | — | — | — | — | — | — | — | — | — |
| Parker Oil Co., Inc. | 250 | 2 | — | — | — | — | — | — | — | — | — |
| Pester Corp. | 205 | 10 | — | — | — | — | — | — | — | — | — |
| Petroleum Marketers Inc. | 31 | 1 | — | — | — | — | — | — | — | — | — |
| Petroleum Products Corp. | 6 | 1 | — | — | — | — | — | — | — | — | 6 |
| Petroleum Sales & Service | 4 | 1 | — | — | — | — | — | — | 4 | — | — |
| Phillips Fuel Co. | 80 | 1 | — | — | — | — | — | — | — | 80 | — |
| Phillips Petroleum Co. | 11,827 | 37 | — | — | — | — | — | — | — | — | 101 |
| Piasa Motor Fuels Inc. | 25 | 2 | — | — | — | — | — | — | — | — | — |
| Pilot Oil Corp. | 101 | 11 | — | — | — | — | — | — | — | — | 1 |
| Port Oil Co. | 58 | 2 | — | — | — | — | — | — | — | — | — |
| Power Test Corp. | 475 | 5 | — | — | — | 30 | — | 30 | 372 | 41 | 2 |
| Pride Oil Co. (TN) | 12 | 1 | — | — | — | — | — | — | — | — | — |
| Pride Oil Co. (MS) | 25 | 2 | — | — | — | — | — | — | — | — | — |
| Private Brand Services | 1 | 1 | — | — | — | — | — | — | — | — | — |
| W.H. Pugh Oil Co. | 15 | 1 | — | — | — | — | — | — | — | — | — |
| Pyramid Oil Co. | 45 | 1 | — | — | — | — | — | — | — | 45 | — |
| Quaker State Oil Ref. Corp. | 202 | 4 | — | — | — | — | — | — | 52 | — | 51 |
| Quality Oil Co. | 110 | 2 | — | — | — | — | — | — | — | — | — |
| Quincy Oil | 5 | 1 | — | — | — | 5 | — | — | — | — | — |
| Reinaur Petroleum Co. | 43 | 1 | — | — | — | — | — | — | — | 43 | — |
| Reinhardt Oil Corp. | 35 | 1 | — | — | — | — | — | — | 35 | — | — |
| R. I. Marketing Inc. (D) | 202 | (x) | — | — | — | — | — | — | — | — | — |
| River Oil Co. | 23 | 1 | — | — | — | — | — | — | — | — | — |
| San Ann Service | 69 | 2 | — | — | — | — | — | — | — | — | — |
| Santee Oil Co. | 58 | 1 | — | — | — | — | — | — | — | — | — |
| Sears Oil Co. | 12 | 1 | — | — | — | — | — | — | 12 | — | — |
| Self-Service Oil Co. | 18 | 4 | — | — | — | — | — | — | — | — | — |
| Shelby Petroleum Corp. | 20 | 2 | — | — | — | — | — | — | — | — | — |
| Shell Oil Company | 12,147 | 40 | — | 9 | — | 181 | 43 | 136 | 261 | 209 | 8 |
| Sherer Oil Co. | 16 | 1 | — | — | — | — | — | — | — | — | 16 |
| Shotmeyer Bros. Petroleum Corp. | 70 | 1 | — | — | — | — | — | — | — | 70 | — |
| Shotmeyer Oil Corp. | 36 | 3 | — | — | — | — | — | — | 1 | 34 | 1 |
| Sico Co. | 145 | 2 | — | — | — | — | — | — | — | — | 144 |
| Simon Oil Co. | 125 | 1 | — | — | — | — | — | — | 125 | — | — |
| Sing Oil Co. | 75 | 4 | — | — | — | — | — | — | — | — | — |
| Smith-Shafer Oil Co. | 8 | 2 | — | — | — | — | — | — | — | — | — |
| Somerset Refinery | 30 | 1 | — | — | — | — | — | — | — | — | — |
| Southern Oil Co. | 12 | 1 | — | — | — | — | — | — | — | — | — |
| Southland Oil Co. | 50 | 1 | — | — | — | — | — | — | — | — | — |
| Speedway Petroleum Co. | 18 | 2 | — | 2 | — | 16 | — | — | — | — | — |
| The Spencer Companies | 103 | 1 | — | — | — | — | — | — | — | — | — |
| M. Spiegel & Sons Oil Corp. | 34 | 1 | — | — | — | — | — | — | 34 | — | — |
| Standard Cycle & Auto Supply Co. (SCASCO) | 40 | 1 | — | — | — | — | — | 40 | — | — | — |
| Standard Oil Co. (Indiana) | 17,800 | 35 | — | — | — | 296 | 30 | 207 | 418 | 516 | 890 |
| Standard Oil Co. (Ohio) | 3,100 | 20 | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) | (x) |
| Star Oil Co. | 58 | 1 | — | — | — | — | — | — | — | — | — |

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(B) Direct op/leased only
(C) Approximately
(D) Formerly Golden Imperial, merged with Rock Island Ref. Corp.

| South Atlantic | | | | | | | | | East North Central | | | | | East South Central | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Del. | Md. | D.C. | Va. | W.Va. | N.C. | S.C. | Ga. | Fla. | Ohio | Ind. | Ill. | Mich. | Wis. | Ky. | Tenn. | Ala. | Miss. |
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| 88 | 163 | 2 | 212 | 21 | 278 | 41 | 44 | 326 | 380 | 221 | 318 | 756 | 716 | 35 | 301 | 1 | — |
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| 13 | 243 | 9 | 388 | 2 | 570 | 372 | 467 | 720 | 533 | 387 | 718 | 733 | 175 | 341 | 374 | 430 | 332 |
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| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 34 | 375 | 56 | 671 | — | 1,135 | 506 | 768 | 986 | 474 | 760 | 1,301 | 799 | 623 | — | 854 | 1,314 | 637 |
| (x) | (x) | (x) | (x) | (x) | (x) | — | — | — | (x) | (x) | — | (x) | — | (x) | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | 58 | — | — | — | — | — |

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(E) Purchased by Stormy Oil Co

Source: NPN questionnaires and 1983 Factbook

## Branded Retail Outlets (cont'd.)

| Company | TOTAL BRANDED RETAIL OUTLETS* | TOTAL NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED† | New England | | | | | | Middle Atlantic | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Maine | N.H. | Vt. | Mass. | R.I. | Conn. | N.Y. | N.J. | Pa. |
| **Star Service & Petroleum Co.** | (x) | 15 | — | — | — | — | — | — | — | — | — |
| **Sumrall Oil Services** | 92 | 1 | — | — | — | — | — | — | — | — | — |
| **Sun Co.** | 6,808 | 27 | 87 | 78 | 36 | 421 | 103 | 154 | 970 | 595 | 936 |
| Sunshine Jr. Stores | 322 | 3 | — | — | — | — | — | — | — | — | — |
| Tanner Oil Co. | 97 | 3 | — | — | — | — | — | — | — | — | — |
| A. Tarricone (ATI) | 150 | 3 | — | — | — | — | — | (x) | (x) | (x) | — |
| **Taylor Oil Co.** | 57 | 2 | — | — | — | — | — | — | — | — | — |
| **Tenneco Oil Co.** | 418 | 15 | — | — | — | — | — | 3 | — | — | 1 |
| **Texaco Inc. (xxx)** | 16,692 | 45 | 193 | 114 | 90 | 476 | 108 | 305 | 857 | 316 | 1,186 |
| Thornhill Oil Co. | 23 | 1 | — | — | — | — | — | — | — | — | — |
| Thornton Oil Corp. | 90 | 15 | — | — | — | — | — | 4 | 5 | — | — |
| Tommy Oil Co., Inc. | 27 | 11 | — | — | — | — | — | — | 4 | — | 2 |
| **Total Petroleum** | 1,863 | 22 | — | — | — | — | — | — | — | — | — |
| **Transit Oil Co.** | 15 | 2 | — | — | — | — | — | — | — | — | — |
| **Travelers Petroleum** | 83 | 3 | — | — | — | — | — | — | — | — | — |
| Trenton Oil Co. | 50 | 1 | — | — | — | — | — | — | — | 50 | — |
| Triton Inc. | 42 | 4 | — | — | — | — | — | — | — | — | — |
| Ultramar Petroleum Inc. | 2 | 1 | — | — | — | — | — | — | 2 | — | — |
| **Union Oil Co. of Calif.** | 11,221 | 44 | — | — | — | — | — | 2 | 2 | 2 | 38 |
| **United Ref. Co.** | 450 | (x) | — | — | — | — | — | — | — | — | — |
| **United States Oil Co.** | 5 | 1 | — | — | — | — | — | — | — | — | — |
| Wake Up Oil Co. | 43 | 1 | — | — | — | — | — | — | — | — | — |
| Warelubco | 92 | (x) | — | — | — | — | — | — | — | — | — |
| Willard Oil Co. | 25 | 1 | — | — | — | — | — | — | — | — | — |
| **A.T. Williams Oil** | 67 | 2 | — | — | — | — | — | — | — | — | — |
| **J.H. Williams Oil Co.** | 87 | 1 | — | — | — | — | — | — | — | — | — |
| **York Oil Co.** | 14 | 1 | — | — | — | — | — | — | — | — | — |
| Young Oil | 11 | 1 | — | — | — | — | — | — | — | — | — |
| Zephyr, Inc. | 50 | 2 | — | — | — | — | — | — | — | — | — |

| Company | TOTAL BRANDED RETAIL OUTLETS* | TOTAL NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED† | West North Central | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Minn. | Iowa | Mo. | N.D. | S.D. | Neb. | Kan. |
| **ADA Resources** | 143 | 1 | — | — | — | — | — | — | — |
| **American Petrofina Inc.** | 4,037 | 20 | — | 15 | 163 | — | 1 | 24 | 145 |
| **Arkla Chemical Corp.** | 4 | 3 | — | — | — | — | — | — | — |
| Armour Oil Co. | 85 | 5 | — | — | — | — | — | — | — |
| Atlantic Richfield Co. | 4,363 | 24 | — | — | — | — | — | — | — |
| Beacon Oil Co. | 268 | 3 | — | — | — | — | — | — | — |
| **Brennan Petroleum Products Co.** | 3 | 1 | — | — | — | — | — | — | — |
| **Cardon Oil Co.** | 50 | 5 | — | — | — | — | — | — | — |
| **Cenex (xxx)** | 1,117 | 14 | 250 | 100 | — | 172 | 107 | 65 | 1 |
| Chapman, Inc. | 67 | 3 | — | — | — | — | — | — | — |
| Chevron, U.S.A. | 12,111 | 39 | — | — | — | — | — | 1 | — |
| Citgo Petroleum Corp. (A) | 3,915 | 31 | 14 | — | 7 | — | — | — | — |
| **Conna Corp.** | 267 | 9 | — | 1 | — | — | — | — | — |
| **Conoco Inc.** | 5,091 | 40 | 183 | 245 | 294 | 72 | 48 | 232 | 227 |
| **Cook & Cooley Inc.** | 75 | 1 | — | — | — | — | — | — | — |
| Cory's Gasoline Stations Inc. | 3 | 1 | — | — | — | — | — | — | — |
| Curt's Oil Co. | 7 | 1 | — | — | — | — | — | — | — |
| Derby Refining Co. | 529 | 12 | 9 | 111 | 106 | — | 3 | 47 | 169 |
| **Desert Oil Co.** | 7 | 1 | — | — | — | — | — | — | — |
| **Diamond Shamrock Corp.** | 1,993 | 25 | — | 12 | — | — | — | 18 | 31 |
| **Dickey Inc.** | 6 | 1 | — | 6 | — | — | — | — | — |
| Exxon Co. U.S.A. | 18,707 | 41 | — | — | — | 66 | 7 | 3 | — |
| Farmland Industries | 1,100 | 15 | — | 189 | 66 | 34 | 62 | 149 | 266 |
| Fill-Up Inc. | 30 | 1 | — | — | — | — | — | — | — |
| **Fisca Oil Co.** | 102 | 22 | — | 3 | 5 | — | 1 | 3 | 2 |
| **Fletcher Oil Co.** | 15 | 3 | — | — | — | — | — | — | — |
| **Flying J Inc.** | 59 | 9 | — | — | 7 | — | — | — | — |
| Franko Oil Co. | 92 | 3 | — | — | — | — | — | — | — |
| Gasco Gasoline | 104 | 1 | — | — | — | — | — | — | — |
| General Oil Co. | 52 | 2 | — | — | 2 | — | — | — | — |
| **Getty Refining & Marketing Co. (xxx)** | 4,494 | 28 | 310 | 332 | 465 | 36 | 35 | 168 | 316 |
| **Giant Industries Inc.** | 12 | 2 | — | — | — | — | — | — | — |

---

*Total branded retail outlets include garages, motels, C-stores, and service stations. By U.S. Census Bureau definition, only establishments generating 50% or more of their income from the sale of petroleum products and services are service stations.

†Total number of states where gasoline is branded includes the District of Columbia.

| South Atlantic | | | | | | | | | East North Central | | | | | East South Central | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Del. | Md. | D.C. | Va. | W.Va. | N.C. | S.C. | Ga. | Fla. | Ohio | Ind. | Ill. | Mich. | Wis. | Ky. | Tenn. | Ala. | Miss. |
| — | — | — | — | — | — | (x) | (x) | (x) | (x) | (x) | (x) | — | — | (x) | (x) | (x) | (x) |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 92 |
| 28 | 180 | 20 | 132 | 107 | 243 | 15 | — | 146 | 623 | 262 | 291 | 415 | — | 141 | 28 | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 119 | 30 |
| — | — | — | — | 28 | — | — | — | — | 42 | — | — | — | — | 23 | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 9 | — | 48 | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 7 | 3 | 25 | 35 | 45 | 117 | — | — | — | — | — | 11 | 41 | 22 | 10 |
| 68 | 346 | 17 | 1,081 | 26 | 1,300 | 616 | 713 | 324 | — | 201 | 514 | 2 | 16 | 338 | 859 | 904 | 335 |
| — | — | — | — | — | — | — | — | — | — | 23 | — | — | — | — | — | — | — |
| — | 1 | — | 6 | — | 11 | 3 | 5 | 6 | 11 | 7 | 6 | 2 | — | 15 | 1 | — | — |
| — | — | — | — | — | — | — | 1 | 4 | 8 | — | — | — | — | — | 3 | 1 | — |
| — | — | — | — | — | — | — | — | — | 3 | 5 | 10 | 514 | 30 | 3 | 19 | 5 | — |
| — | — | — | — | — | — | — | — | — | — | 4 | — | — | — | 11 | — | — | — |
| — | — | — | — | — | — | 70 | 8 | 5 | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 4 | — | 10 | 8 | 20 | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | 10 | — | 427 | 250 | 723 | 303 | 607 | 774 | 650 | 361 | 362 | 638 | 354 | 169 | 530 | 980 | 481 |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | 43 | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | 25 | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 28 | — | 39 | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | 87 | — | — | — | — | — | — | — | — | — |
| — | — | — | 14 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 11 | — |
| — | — | — | — | — | — | — | — | — | — | — | — | 45 | 5 | — | — | — | — |

| West South Central | | | | Mountain | | | | | | | | Pacific | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ark. | La. | Okla. | Texas | Mont. | Idaho | Wyo. | Colo. | N.M. | Ariz. | Utah | Nev. | Wash. | Ore. | Calif. | Alaska | Hawaii |
| — | — | — | 143 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 171 | 135 | 139 | 1,301 | — | — | — | — | 145 | — | — | — | — | — | — | — | — |
| 2 | 1 | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | 1 | — | 2 | 42 | 1 | 39 | — | — |
| — | — | — | — | — | — | — | — | — | 34 | 8 | 34 | 296 | 208 | 1.294 | — | 19 |
| — | — | — | — | — | — | — | — | — | — | — | 4 | — | 2 | 262 | — | — |
| — | — | — | — | — | — | — | — | — | 3 | — | — | — | — | — | — | — |
| — | — | 5 | — | — | — | — | — | — | 42 | 2 | — | — | — | — | — | — |
| — | — | — | — | 109 | 52 | 8 | 7 | — | — | 16 | — | 77 | 49 | — | — | — |
| 13 | — | 2 | 52 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 39 | 1 | — | 211 | 76 | 158 | 37 | 108 | 239 | 259 | 168 | 131 | 583 | 401 | 2.458 | 159 | 174 |
| 117 | 215 | 34 | 167 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 156 | 445 | 351 | 670 | 308 | 79 | 82 | 410 | 160 | 4 | 142 | 15 | 139 | — | 156 | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 75 | — | — |
| — | — | — | — | — | — | — | — | — | 3 | — | — | — | — | — | — | — |
| — | — | 7 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 4 | — | 27 | 7 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | 7 | — | — | — | — | — | — | — | — | — | — |
| 28 | 24 | 120 | 1,360 | — | 8 | 19 | 129 | 95 | 4 | 54 | 2 | 12 | — | 38 | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 698 | 909 | 118 | 2.954 | 293 | 58 | 27 | 137 | 172 | 316 | 21 | 33 | 312 | 170 | 1.103 | — | — |
| 3 | — | 90 | 84 | 6 | 1 | 15 | 70 | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | 30 | — | — | — |
| — | — | — | 21 | — | — | — | 3 | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | 2 | — | — | — | — | — | — | 3 | 10 | — | — | — |
| — | — | — | — | 3 | 4 | 1 | — | — | — | 5 | 1 | 20 | 3 | 15 | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | 14 | 73 | 5 | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 104 | — | — |
| 50 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 1 | — | 355 | 5 | — | — | 2 | 86 | — | — | — | — | — | — | 68 | — | — |
| — | — | — | — | — | — | — | — | 2 | 10 | — | — | — | — | — | — | — |

(xxx) Latest data available. Company either did not respond to the 1984 questionnaire or did not answer all of the questions fully.
(x) Company did not disclose the number of outlets.
(A) Owned by The Southland Corp.

# Branded Retail Outlets (cont'd.)

| Company | TOTAL BRANDED RETAIL OUTLETS* | TOTAL NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED† | West North Central | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Minn. | Iowa | Mo. | N.D. | S.D. | Neb. | Kan. |
| **Jack Griffith Petroleum Products** | 14 | 1 | — | — | — | — | — | — | — |
| **Gulf Ref. & Marketing Co.** | 15,103 | 33 | — | — | 2 | — | — | — | — |
| **Gull Industries** | 110 | 2 | — | — | — | — | — | — | — |
| Harrell Petroleum Co | 25 | 1 | — | — | — | — | — | — | — |
| Harris Enterprises | 20 | 1 | — | — | — | — | — | — | — |
| Hinkle Distributors | 9 | 1 | — | — | — | — | — | — | — |
| **Barney Holland Oil Co.** | 68 | 1 | — | — | — | — | — | — | — |
| **Hornet Oil Co.** | 37 | 6 | — | — | — | — | — | — | (x) |
| **Hudson Oil Co. & Affiliated Cos.** | 235 | 27 | (x) | (x) | (x) | — | — | (x) | (x) |
| Inter-City Oil Co. of St. Cloud (E) | | | | | | | | | |
| JS & J Service Inc. | 19 | 2 | — | — | — | — | — | — | — |
| Jones Oil Co. | 6 | 1 | — | — | 6 | — | — | — | — |
| **Kaibab Industries** | 30 | 1 | — | — | — | — | — | — | — |
| **Kellett Oil Co.** | 3 | 1 | — | — | 3 | — | — | — | — |
| **Kerr-McGee Ref. Corp.** | 1,785 | 21 | 54 | 149 | 131 | 9 | 30 | 111 | 151 |
| Kittie Petroleum Inc. | 15 | 1 | — | — | — | — | — | — | — |
| Krause Gentle Oil Corp. | 57 | 1 | — | 57 | — | — | — | — | — |
| Kwik Shop Inc. | 100 | 3 | — | 26 | — | — | — | 27 | 47 |
| **Land O' Lakes (MN)** | 392 | 6 | 101 | 135 | — | 5 | — | 69 | — |
| **M.F.A. Oil Co.** | 200 | 2 | — | — | 150 | — | — | — | — |
| **Martin Oil Marketing Ltd.** | 92 | 11 | 1 | 2 | — | — | — | — | — |
| Merchants Oil | 60 | 2 | — | — | — | — | — | — | — |
| Merritt Truax | 60 | 1 | — | — | — | — | — | — | — |
| Mico Oil Co. | 24 | 10 | 4 | — | 2 | 1 | 2 | — | 2 |
| **Mid Continent Systems** | 45 | 6 | — | — | — | — | — | — | — |
| **Mid-Missouri Oil Co.** | 6 | 1 | — | — | 6 | — | — | — | — |
| **Midwest Petroleum** | 100 | 2 | — | — | 70 | — | — | — | — |
| Miller & Holmes | (x) | 9 | (x) | (x) | — | (x) | (x) | (x) | — |
| Missouri Terminal Oil Co. | 16 | 1 | — | — | 16 | — | — | — | — |
| Mobil Oil Corp. | 15,403 | 43 | 481 | 186 | 478 | 105 | 139 | 141 | 111 |
| **Munford, Inc.** | 471 | 14 | — | — | 1 | — | — | — | — |
| **Murphy Oil Corp.** | 614 | 14 | 60 | — | — | — | — | — | — |
| **Musket Corp.** | 120 | 9 | — | — | (x) | — | — | — | (x) |
| National Convenience Stores | 60 | 5 | — | — | — | — | — | — | — |
| Neal Inc. | 35 | 1 | — | — | — | — | — | — | — |
| Newell Oil Co | 12 | 1 | — | — | — | — | — | — | — |
| **Pacer Oil Co.** | 17 | 2 | — | — | — | — | — | — | — |
| **Pacific Northern Oil Corp.** | 44 | 1 | — | — | — | — | — | — | — |
| **Curtis Parker Oil Co.** | 45 | 1 | — | — | — | — | — | — | — |
| Peavy Oil Co. | 4 | 1 | — | — | — | — | — | — | — |
| Pester Corp. | 205 | 10 | 13 | 94 | 21 | — | 5 | 14 | 16 |
| Phillips Petroleum Co | 11,827 | 37 | 471 | 457 | 808 | 29 | 136 | 323 | 377 |
| **Piasa Motor Fuels Inc.** | 25 | 2 | — | — | 2 | — | — | — | — |
| **Quartrup Petroleum Co.** | 7 | 1 | — | — | — | — | — | — | — |
| **Research Fuels Inc.** | 2 | 1 | — | — | — | — | — | — | — |
| Robinson Oil Co. | 22 | 1 | — | — | — | — | — | — | — |
| Ross Resources Inc. | 20 | 2 | — | — | — | — | — | — | 19 |
| Sahara Oil Co., Inc. | 23 | 1 | — | — | — | — | — | — | — |
| **Schaeffer Oil** | 26 | 5 | 2 | — | — | 7 | 6 | 4 | — |
| **Self-Service Oil Co.** | 18 | 4 | — | 1 | 5 | — | — | — | — |
| **Shaver & McCarthy Inc.** | 2 | 1 | 2 | — | — | — | — | — | — |
| Shell Oil Company | 12,147 | 40 | — | 52 | 257 | — | — | — | — |
| Southern Counties Oil Co. | 4 | 1 | — | — | — | — | — | — | — |
| Standard Oil Co. (Indiana) | 17,800 | 35 | 675 | 374 | 607 | 214 | 252 | 212 | 293 |
| **Standard Oil Co. (Ohio)** | 2,100 | 20 | — | — | — | — | — | — | — |
| **Star Service & Petroleum Co.** | (x) | 15 | — | — | (x) | — | — | (x) | (x) |
| **Stormy Oil Co.** | 7 | 1 | 7 | — | — | — | — | — | — |
| Sun Co. | 6,808 | 27 | — | 236 | 271 | — | — | — | — |
| Sunshine Jr. Stores | 322 | 3 | — | — | — | — | — | — | — |
| Target Enterprises (CA) | 100 | 1 | — | — | — | — | — | — | — |
| **Tenneco Oil Co.** | 418 | 15 | — | — | — | — | — | — | — |
| **Tesoro Petroleum Corp.** | 91 | 2 | — | — | — | — | — | — | — |
| **Texaco Inc. (xxx)** | 18,692 | 45 | — | — | 126 | — | 34 | 64 | — |
| Thornton Oil Corp. | 90 | 15 | — | — | — | — | — | — | — |
| Time Oil Co. | 240 | 5 | — | — | — | — | — | — | — |
| Tommy Oil Co., Inc. | 27 | 11 | — | — | 1 | — | — | — | 1 |
| **Tooley Oil Co.** | 10 | 2 | — | — | — | — | — | — | — |
| **Total Petroleum Inc.** | 1,863 | 22 | 56 | 125 | 370 | 7 | 20 | 76 | 302 |
| **Town Pump** | 61 | 1 | — | — | — | — | — | — | — |
| Traux Corp. | 65 | 2 | — | — | — | — | — | — | — |
| Union Oil Co. of Calif. | 11,221 | 44 | 269 | 75 | 10 | 1 | 10 | 3 | 1 |
| Webster Companies | 18 | 1 | — | — | 18 | — | — | — | — |
| **Western Marketing** | 25 | 1 | — | — | — | — | — | — | — |
| **Wickland Oil Co.** | 85 | 3 | — | — | — | — | — | — | — |
| **Zarda Bros.** | 19 | 2 | — | — | 12 | — | — | — | 7 |

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(B) Direct op leased only

(C) Approximately

(D) Formerly Golden Imperial, merged with Rock Island Ref. Corp.

| West South Central | | | | Mountain | | | | | | | | Pacific | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ark.** | **La.** | **Okla.** | **Texas** | **Mont.** | **Idaho** | **Wyo.** | **Colo.** | **N.M.** | **Ariz.** | **Utah** | **Nev.** | **Wash.** | **Ore.** | **Calif.** | **Alaska** | **Hawaii** |
| — | — | 14 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 598 | 752 | 371 | 2,725 | — | — | — | — | 118 | 1 | — | — | — | — | 3 | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | 85 | 25 | — | — | — |
| — | — | — | 25 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | 20 | — | — | — |
| — | — | — | 9 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 68 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| (x) | (x) | (x) | (x) | — | — | — | — | (x) | — | — | — | — | — | — | — | — |
| — | (x) | — | — | — | — | — | (x) | — | (x) | — | (x) | (x) | — | (x) | — | — |
| — | — | — | — | — | — | — | — | — | 1 | — | — | — | — | 18 | — | — |
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| 223 | 3 | 372 | 218 | — | — | — | — | 39 | — | — | — | — | — | — | — | — |
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| — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | 2 | — | — |
| — | — | — | — | — | — | 1 | 59 | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | 60 | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | 16 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
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| — | — | — | — | (x) | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 82 | 265 | 80 | 1,184 | — | — | — | — | 22 | 174 | — | 25 | 381 | 322 | 1,578 | — | — |
| 21 | 59 | — | 67 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 15 | 33 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| (x) | (x) | (x) | (x) | — | — | — | (x) | (x) | — | — | — | — | — | — | — | — |
| — | — | — | 34 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 35 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 12 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | 16 | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | 44 | — | — | — |
| — | 45 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | 4 | — | — | — |
| — | — | — | — | — | — | 3 | 37 | — | — | — | — | — | — | — | — | — |
| 322 | 216 | 659 | 1,590 | — | 186 | 63 | 357 | 213 | 15 | 186 | 8 | 2 | 8 | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 7 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 2 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 22 | — | — |
| — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | 23 | — | — | — | — | — | — | — |
| — | — | — | — | — | 7 | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 131 | 475 | — | 643 | — | 56 | — | 15 | 134 | 91 | 22 | 66 | 413 | 362 | 1,704 | — | 71 |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 4 | — | — |
| — | 684 | — | 258 | — | 113 | 123 | 259 | — | — | 26 | — | — | — | — | — | — |
| (x) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | (x) | (x) | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 32 | — | 258 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | 8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 100 | — | — |
| — | 42 | — | 42 | — | — | — | 14 | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | 17 | 74 | — |
| 438 | 868 | 493 | 2,119 | — | 79 | 74 | 286 | 177 | 196 | 154 | 56 | 468 | 392 | 1,221 | 92 | 50 |
| — | — | — | 7 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | 2 | — | — | — | — | — | 10 | 167 | 14 | 47 | — | — |
| — | — | 1 | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | 1 | — | — | 9 | — | — |
| 21 | 6 | 174 | 25 | — | — | — | 46 | 11 | 35 | — | — | — | — | — | — | — |
| — | — | — | — | 61 | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | 5 | 65 | — | — | — |
| 72 | 30 | 3 | 81 | 4 | 15 | 4 | 1 | 2 | 138 | 36 | 53 | 344 | 254 | 1,903 | 106 | 143 |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | 25 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | 2 | — | 1 | 82 | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

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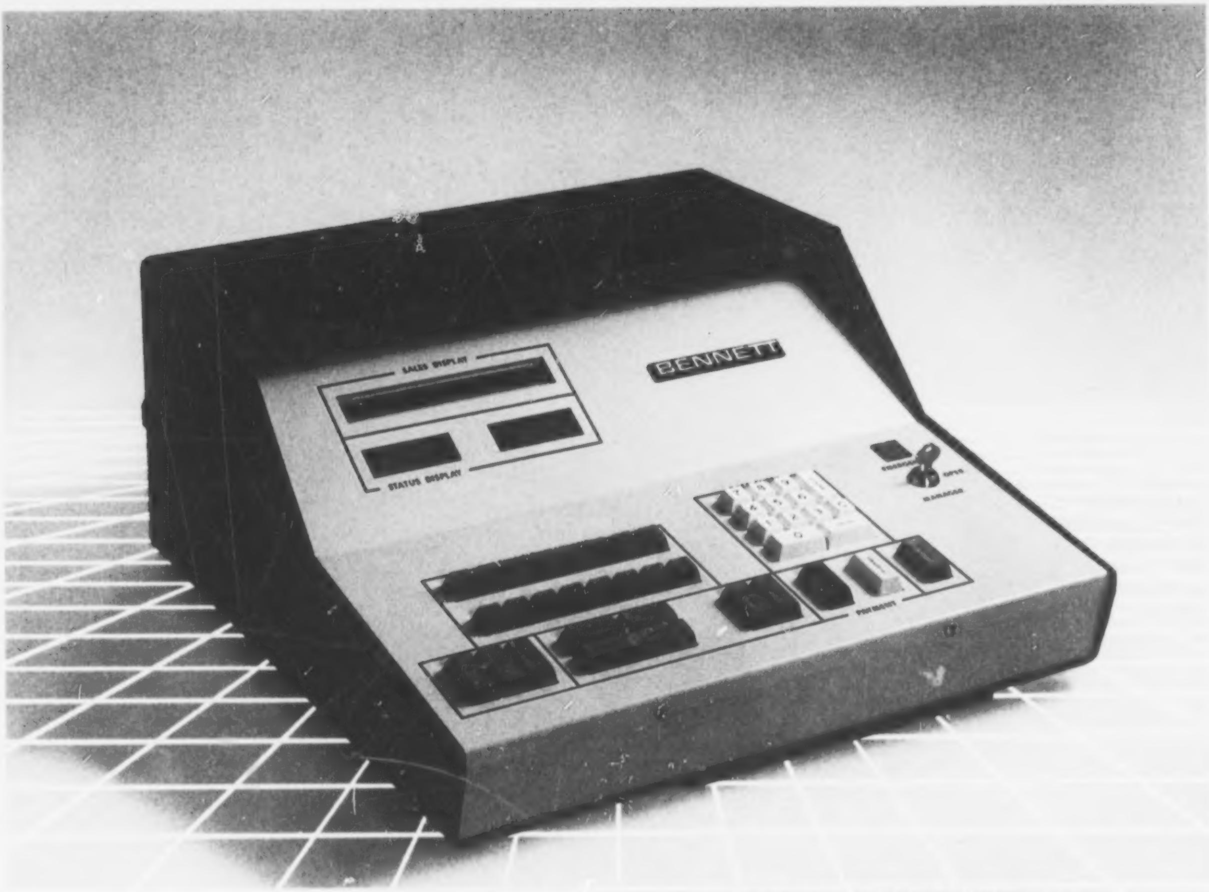
(E) Purchased by Stormy Oil Co.
Source: NPN questionnaires and 1983 Factbook



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  16 hoses - 6000 Conventional Electronic
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# Average Number of Employees

## (As of Jan. 1, 1983)

| | Mining | Manufacturing | | Transportation | | Wholesale | Retail | |
|---|---|---|---|---|---|---|---|---|
| | Crude Oil and Natural Gas Extraction | Petroleum Refining | Lubricating Oils and Greases | Pipelines (Except Natural Gas) | Gas Production and Distribution | Petroleum and Petroleum Products | Gasoline Service Stations | Total |
| **Alabama** | 1,954 | 420 | 31 | 101 | 3,052 | 4,396 | 7,257 | 17,211 |
| **Alaska** | 7,772 | 167 | 0 | 1,237 | 291 | 397 | 1,122 | 10,986 |
| **Arizona** | 217 | 103 | 0 | 97 | 992 | 1,478 | 7,195 | 10,082 |
| **Arkansas** | 4,240 | 796 | N.D. | 331 | 2,446 | 2,597 | 4,300 | 14,710 |
| **California** | 40,416 | 28,181 | 883 | 1,071 | 10,462 | 15,792 | 59,447 | 156,252 |
| Colorado | 29,300 | 600 | 39 | 170 | 2,543 | 3,253 | 8,970 | 44,875 |
| Connecticut | 200 | 410 | 80 | N.D. | 1,310 | 2,910 | 8,920 | 13,830 |
| Delaware | 30 | 1,054 | 10 | 1 | 378 | 509 | 1,427 | 3,409 |
| Florida | 1,103 | 84 | 189 | 64 | 2,278 | 7,086 | 28,271 | 39,075 |
| Georgia | 139 | 103 | 125 | 510 | 3,510 | 6,091 | 14,764 | 25,242 |
| **Hawaii** | N.D. | 408 | 0 | 0 | 359 | 476 | 3,402 | 4,645 |
| **Idaho** | 203 | 2 | 0 | 15 | 479 | 1,542 | 2,076 | 4,317 |
| **Illinois** | 7,300 | 7,400 | 800 | 1,050 | 9,400 | 12,000 | 23,000 | 60,950 |
| **Indiana** | 923 | 3,036 | 307 | 474 | 4,556 | 4,301 | 14,584 | 28,181 |
| **Iowa** | 15 | 0 | 52 | 177 | 1,188 | 2,951 | 11,139 | 15,522 |
| Kansas | 17,108 | 4,017 | N.D. | 2,125 | 4,789 | 2,667 | 7,364 | 38,070 |
| Kentucky | 3,554 | 3,507 | 7 | 160 | 3,035 | 3,114 | 9,096 | 22,573 |
| Louisiana | 95,300 | 12,600 | N.A. | 1,000 | 7,000 | 6,700 | 8,600 | 131,200 |
| Maine | 20 | 0 | 0 | N.D. | N.D. | 1,246 | 2,461 | 3,727 |
| Maryland | 36 | 0 | 197 | 0 | 0 | 3,346 | 12,540 | 16,119 |
| **Massachusetts** | 216 | 1,076 | 1,317 | 40 | 4,917 | 3,708 | 13,961 | 25,235 |
| **Michigan** | 4,600 | 2,000 | 400 | 200 | 8,300 | 5,200 | 20,400 | 41,100 |
| **Minnesota** | 366 | 910 | N.D. | 192 | 2,519 | 2,827 | 14,552 | 21,366 |
| **Mississippi** | 10,999 | 1,512 | 87 | 168 | 2,253 | 3,383 | 4,624 | 23,026 |
| **Missouri** | 215 | N.D. | 2,295 | 255 | 5,061 | 7,368 | 13,976 | 29,170 |
| Montana | 5,482 | 1,060 | 0 | 97 | 117 | 1,776 | 2,291 | 10,823 |
| Nebraska | 1,037 | 31 | 167 | 106 | 3,783 | 1,717 | 6,008 | 12,849 |
| Nevada | 575 | 48 | 2 | 22 | 552 | 554 | 3,342 | 5,095 |
| New Hampshire | 1 | 0 | 1 | 3 | 316 | 552 | 2,411 | 3,284 |
| New Jersey | 93 | 9,018 | 945 | 160 | 2,042 | 4,755 | 18,659 | 35,672 |
| **New Mexico** | 15,431 | 1,051 | 22 | 297 | 3,853 | 1,863 | 4,003 | 26,520 |
| **New York** | 2,484 | 10,967 | 388 | 131 | 7,143 | 13,755 | 28,645 | 63,513 |
| **North Carolina** | 8 | 0 | 169 | 115 | 2,504 | 6,979 | 9,659 | 19,434 |
| **North Dakota** | 7,857 | 263 | 0 | 168 | 263 | 2,438 | 2,164 | 13,153 |
| **Ohio** | 12,548 | 5,847 | 654 | 696 | 7,867 | 6,436 | 28,622 | 62,670 |
| Oklahoma | 102,227 | 8,138 | 302 | 2,676 | 5,686 | 7,617 | 6,608 | 133,254 |
| Oregon | 122 | 0 | 4 | 0 | 1,463 | 2,178 | 7,395 | 11,162 |
| Pennsylvania | 5,500 | 13,000 | 1,400 | 700 | 9,100 | 11,300 | 27,400 | 68,400 |
| Rhode Island | 114 | 0 | N.D. | 0 | 877 | 601 | 2,262 | 3,854 |
| South Carolina | 12 | N.D. | N.D. | N.D. | 612 | 3,528 | 6,449 | 10,601 |
| **South Dakota** | 160 | 2 | 0 | 61 | 140 | 1,468 | 2,620 | 4,451 |
| **Tennessee** | 895 | 70 | 46 | 45 | 2,103 | 4,403 | 11,688 | 19,250 |
| **Texas** | 292,522 | 41,429 | 931 | 5,565 | 30,161 | 26,629 | 35,933 | 433,170 |
| **Utah** | 5,401 | 875 | N.D. | 105 | 2,961 | 1,970 | 4,129 | 15,441 |
| **Vermont** | N.D. | 0 | N.D. | 0 | 132 | 320 | 1,685 | 2,137 |
| Virginia | 300 | 200 | 0 | 100 | 2,600 | 7,600 | 13,900 | 24,700 |
| Washington | 228 | 1,611 | N.D. | 87 | 1,560 | 3,146 | 9,188 | 15,820 |
| West Virginia | 6,083 | 530 | 70 | 133 | 5,541 | 2,062 | 3,853 | 18,272 |
| Wisconsin | 19 | 148 | 126 | 151 | 2,945 | 4,928 | 12,032 | 20,349 |
| Wyoming | 21,030 | 1,611 | 2 | 447 | 1,013 | 1,152 | 2,990 | 28,245 |
| Dist. of Columbia | 35 | 139 | 0 | 0 | 732 | 329 | 1,078 | 2,313 |
| Total | 706,390 | 164,524 | 12,048 | 21,303 | 177,184 | 225,394 | 558,462 | 1,865,305 |

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N.D.—Non-Disclosure. N.A.—Not Available.
Source—Independent Petroleum Assn. of America, "The Oil Industry in Your State," 1983.

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| Los Angeles, CA | Chicago, IL | Houston, TX | Houston, TX | Atlanta, GA | Atlanta, GA | Bradford, PA | Philadelphia, PA | New York, NY |
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## How Distillates Were Used in 1982

(Add 000 bbl.)

| Use | 1982 | 1981 | % Change | % Share of Total Distillate Use in 1982 | % Share of Total Distillate Use in 1981 |
|---|---|---|---|---|---|
| Residential | 180,760 | 197,400 | (8.4%) | 18.5% | 19.1% |
| Commercial | 75,699 | 78,663 | (3.8) | 7.8 | 7.6 |
| Industrial | 71,340 | 80,216 | (11.1) | 7.3 | 7.8 |
| Farm | 68,453 | 69,665 | (1.7) | 7.0 | 7.1 |
| **Sub-total(a)** | 396,252 | 425,994 | (7.0) | 40.6 | 41.3 |
| Oil Company | 29,482 | 29,185 | 1.0 | 3.0 | 2.3 |
| Elec. Utils | 12,134 | 18,192 | (33.3) | 1.2 | 3.1 |
| Railroads | 93,150 | 100,482 | (7.3) | 9.6 | 9.7 |
| Vessels | 33,885 | 41,025 | (17.4) | 3.5 | 3.4 |
| Highway diesel | 338,006 | 340,002 | (0.6) | 34.7 | 31.3 |
| Military | 15,201 | 17,763 | (14.4) | 1.6 | 1.7 |
| Off-highway diesel | 37,118 | 38,851 | (4.5) | 3.8 | 3.8 |
| All other | 19,639 | 21,032 | (6.6) | 2.0 | 2.0 |
| **U.S. total** | **974,864** | **1,032,476** | **(5.6)** | — | — |

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(a) For a general consideration, the sum of the residential, commercial, industrial and farm is roughly comparable to the old "heating" category, which was discontinued in 1979.
Source: Deliveries of Fuel Oil and Kerosine in 1982, Petroleum Supply Annual, Energy Information Administration, June 1983.

## How Residual Was Used in 1982

(Add 000 bbl.)

| Use | 1982 | 1981 | % Change | % Share of Total Residual Use in 1982 | % Share of Total Residual Use in 1981 |
|---|---|---|---|---|---|
| Commercial | 65,781 | 67,035 | (1.9%) | 10.5% | 8.8% |
| Industrial | 122,619 | 117,024 | 4.8 | 19.6 | 15.4 |
| **Sub-total(a)** | 188,400 | 184,059 | 2.4 | 30.1 | 24.2 |
| Oil Company | 45,319 | 51,870 | (12.6) | 7.2 | 6.8 |
| Elec. Util | 227,419 | 325,486 | (30.1) | 36.3 | 42.7 |
| Railroad | 170 | 178 | (4.5) | — | — |
| Vessels | 152,586 | 188,632 | (19.1) | 24.4 | 24.8 |
| Military | 7,829 | 7,008 | 11.7 | 1.2 | 0.9 |
| All other | 4,784 | 4,795 | — | 0.8 | 0.6 |
| **U.S. total** | **626,510** | **762,030** | **(17.8)** | — | — |

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(a) Separate space-heating category no longer exists. The sum of the commercial and industrial categories roughly approximates the heating category prior to 1979.
Source: Deliveries of Fuel Oil and Kerosine in 1982, Petroleum Supply Annual, Energy Information Administration, June 1983.

## How Kerosine Was Used in 1982

(Add 000 bbl.)

| Use | 1982 | 1981 | % Change | % Share of Total Kerosine Use in 1982 | % Share of Total Kerosine Use in 1981 |
|---|---|---|---|---|---|
| Residential | 16,769 | 15,052 | 11.4% | 35.7% | 32.5% |
| Commercial | 5,347 | 12,229 | (56.3) | 11.4 | 26.4 |
| Industrial | 6,480 | 3,871 | 67.4 | 13.8 | 8.4 |
| **Sub-total(a)** | 28,596 | 31,152 | (8.2) | 60.1 | 67.3 |
| Farm | 1,346 | 1,591 | (15.4) | 2.3 | 3.4 |
| All other | 17,016 | 13,563 | 25.5 | 36.2 | 29.3 |
| **U.S. total** | **46,963** | **46,306** | **1.4** | — | — |

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(a) Separate heating category no longer exists. The sum of the residential, commercial and industrial roughly approximates the heating category prior to 1979.
Source: Deliveries of Fuel Oil and Kerosine in 1982, Petroleum Supply Annual, Energy Information Administration, June 1983.

## How New Homes Are Heated

**Fuel oil did surprisingly well in the Northeast and the North Central in 1982, the most recent years for which data is available.** Fuel oil got 18% of new homes in 1982, up 5% from 1981, and 3% in the North Central, up from literally zero in 1981. It also increased its nationwide growth by 1%—from 2% in 1981 to 3% in 1982.

| Region | New Homes Completed (Add 000) | Share of New Homes by Fuels and percentages | | | |
|---|---|---|---|---|---|
| | | Gas | Electric | Oil | Other |
| Northeast | 79 | 33% | 34% | 18% | 13% |
| North Central | 92 | 58 | 26 | 3 | 14 |
| South | 340 | 33 | 63 | — | 4 |
| West | 121 | [illegible] | [illegible] | — | 10 |
| **Total 1982** | **632** | **40%** | **50%** | **3%** | **8%** |
| **Total 1981** | **819** | **41%** | **50%** | **2%** | **7%** |

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Source: U.S. Department of Commerce, Construction Reports 25-82-11 July, 1983.

## Gas: Who Uses It for Heat

**Gas added another 622,000 customers in 1982, but its rate of increase plummeted for the second year in a row.** In new homes, it was down 18.1% from 1981; in conversions, it was down a hefty 103%; and in the total of new customers, down a spanking 31.8%.

| | % of Gas-Heated Homes to Total Gas-Using Homes | Consumers Added in 1982 (Add 000) | | |
|---|---|---|---|---|
| | | New Homes | Existing Homes | Total Added |
| New England | 66.8% | 7.2 | 18.1 | 25.3 |
| Mid-Atlantic | 62.5 | [illegible] | 83.8 | 109.1 |
| East North Central | 93.8 | 41.6 | 57.6 | 99.2 |
| West North Central | 97.3 | 25.8 | 11.9 | 37.7 |
| South Atlantic | 90.9 | 53.4 | 54.8 | 108.2 |
| East South Atlantic | 98.3 | 11.2 | 3.3 | 14.5 |
| West South Atlantic | 95.9 | 71.6 | 1.5 | 73.1 |
| Mountain | 98.8 | 40.8 | 2.4 | 42.8 |
| Pacific | 93.4 | 100.5 | 11.8 | 112.3 |
| **Total** | **88.2** | **377.4** | **244.8** | **622.2** |
| % Change 82 vs 81 | | 18.1% | 103% | 31.8% |

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Source: American Gas Assn., Home Heating Survey, 1982.

## Gas Heat Equipment Shipments

**After so many bad years, things took an upturn for shipments of central heating furnaces and boilers for gas-fired equipment in 1983, according to the Gas Appliance Manufacturers Assn.** Furnaces were up 15% and boilers 44%. Wall furnaces and recreational vehicle systems also rebounded significantly. Unit and duct heaters were the only weak points all year, GAMA said.

| Class and Type of Equipment | 1983 | 1982 | % Change |
|---|---|---|---|
| Central Heating: | | | |
| Furnaces | 1,572,700 | 1,367,500 | +15.0% |
| Boilers | 1,661,765 | 1,155,600 | +43.8 |
| Space Heating: | | | |
| Wall Furnaces Vented | 168,310 | 132,640 | +26.9 |
| RV Systems | 176,103 | 109,350 | +61.0 |
| Unit Heaters | 122,020 | 126,600 | 3.6 |
| Duct Heaters | 16,912 | 17,200 | 1.7 |

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Source: Gas Appliance Manufacturers Assn.

# Distillate Sales in 1982 . . .

(Add 000 bbl.)

| | Residential | | Commercial | | Industrial | | Oil Company | |
|---|---|---|---|---|---|---|---|---|
| Destination | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 |
| **PAD District 1** | | | | | | | | |
| New England States | | | | | | | | |
| Connecticut | 12,277 | 12,979 | 2,983 | 2,940 | 1,092 | 958 | 32 | 51 |
| Maine | 4,956 | 5,234 | 1,421 | 1,745 | 444 | 326 | 13 | 58 |
| Massachusetts | 18,139 | 18,747 | 5,525 | 5,773 | 1,569 | 1,526 | 38 | 45 |
| New Hampshire | 3,232 | 3,485 | 593 | 534 | 260 | 379 | 8 | 17 |
| Rhode Island | 2,473 | 2,573 | 434 | 382 | 194 | 208 | 11 | 8 |
| Vermont | 1,399 | 2,013 | 508 | 555 | 134 | 131 | 5 | 10 |
| Central Atlantic States | | | | | | | | |
| Delaware | 897 | 1,031 | 415 | 634 | 96 | 161 | 39 | 36 |
| District of Columbia | 510 | 282 | 451 | 281 | 5 | 78 | 2 | 2 |
| Maryland | 6,184 | 6,805 | 1,775 | 1,572 | 1,206 | 1,486 | 56 | 166 |
| New Jersey | 19,349 | 23,217 | 7,051 | 7,680 | 6,387 | 7,635 | 121 | 680 |
| New York | 31,753 | 35,129 | 13,638 | 12,628 | 3,816 | 3,629 | 291 | 247 |
| Pennsylvania | 20,763 | 24,260 | 4,735 | 5,172 | 5,030 | 5,466 | 283 | 728 |
| Lower Atlantic States | | | | | | | | |
| Florida | 726 | 985 | 652 | 2,578 | 1,341 | 1,937 | 218 | 380 |
| Georgia | 163 | 184 | 1,044 | 1,230 | 908 | 1,158 | 149 | 53 |
| North Carolina | 4,924 | 5,529 | 888 | 1,346 | 1,145 | 1,611 | 47 | 82 |
| South Carolina | 1,136 | 1,432 | 405 | 434 | 486 | 583 | 61 | 64 |
| Virginia | 5,050 | 5,585 | 1,487 | 1,399 | 1,228 | 1,570 | 1,463 | 906 |
| West Virginia | 866 | 894 | 303 | 712 | 1,567 | 1,734 | 168 | 173 |
| **Total** | **134,797** | **150,364** | **44,308** | **47,595** | **26,908** | **30,576** | **3,005** | **3,706** |
| PAD District 2 | | | | | | | | |
| Illinois | 2,675 | 2,624 | 3,139 | 4,070 | 2,854 | 2,186 | 549 | 487 |
| Indiana | 4,234 | 4,110 | 1,445 | 1,142 | 2,343 | 2,447 | 155 | 175 |
| Iowa | 2,116 | 2,016 | 649 | 624 | 603 | 613 | 22 | 25 |
| Kansas | 174 | 19 | 146 | 297 | 895 | 354 | 653 | 850 |
| Kentucky | 649 | 573 | 492 | 603 | 2,926 | 3,346 | 170 | 78 |
| Michigan | 6,331 | 7,913 | 2,137 | 2,373 | 1,456 | 1,564 | 105 | 108 |
| Minnesota | 6,224 | 4,829 | 991 | 837 | 819 | 1,086 | 93 | 83 |
| Missouri | 1,128 | 1,410 | 1,051 | 775 | 833 | 1,249 | 87 | 184 |
| Nebraska | 367 | 386 | 299 | 340 | 213 | 183 | 30 | 33 |
| North Dakota | 915 | 1,068 | 211 | 393 | 288 | 450 | 468 | 486 |
| Ohio | 4,501 | 5,710 | 2,110 | 2,603 | 3,561 | 5,221 | 313 | 366 |
| Oklahoma | 1 | 96 | 157 | 525 | 1,125 | 926 | 1,651 | 2,082 |
| South Dakota | 876 | 702 | 285 | 251 | 107 | 94 | 17 | 67 |
| Tennessee | 404 | 472 | 1,118 | 1,121 | 1,329 | 1,399 | 94 | 123 |
| Wisconsin | 7,587 | 7,508 | 1,282 | 1,155 | 656 | 916 | 38 | 45 |
| Total | 38,182 | 39,436 | 15,512 | 17,109 | 20,008 | 22,034 | 4,445 | 5,192 |
| **PAD District 3** | | | | | | | | |
| Alabama | 55 | 17 | 238 | 998 | 1,686 | 1,746 | 73 | 59 |
| Arkansas | 14 | 20 | 139 | 176 | 488 | 628 | 99 | 192 |
| Louisiana | 84 | 0 | 348 | 518 | 3,512 | 3,595 | 6,936 | 6,057 |
| Mississippi | 0 | 2 | 114 | 138 | 663 | 1,964 | 1,161 | 355 |
| New Mexico | 24 | 18 | 560 | 683 | 617 | 886 | 219 | 352 |
| Texas | 29 | 7 | 4,894 | 3,749 | 4,128 | 4,841 | 8,080 | 8,160 |
| **Total** | **206** | **64** | **6,293** | **6,262** | **11,094** | **13,660** | **16,568** | **15,176** |
| PAD District 4 | | | | | | | | |
| Colorado | 58 | 54 | 151 | 312 | 644 | 946 | 100 | 139 |
| Idaho | 277 | 424 | 470 | 122 | 425 | 428 | 3 | 9 |
| Montana | 353 | 274 | 184 | 381 | 271 | 380 | 101 | 312 |
| Utah | 125 | 73 | 383 | 206 | 767 | 823 | 271 | 514 |
| Wyoming | 30 | 26 | 352 | 125 | 1,585 | 2,129 | 3,008 | 2,314 |
| Total | 843 | 851 | 1,540 | 1,146 | 3,692 | 4,706 | 3,483 | 3,288 |
| **PAD District 5** | | | | | | | | |
| Alaska | 1,128 | 912 | 482 | 533 | 726 | 722 | 5 | 6 |
| Arizona | 0 | 1 | 23 | 60 | 1,050 | 1,679 | 1 | 4 |
| California | 72 | 72 | 4,410 | 3,742 | 4,794 | 3,898 | 1,696 | 887 |
| Hawaii | 0 | 1 | 55 | 178 | 83 | 107 | 219 | 163 |
| Nevada | 158 | 151 | 77 | 333 | 234 | 283 | 5 | 4 |
| Oregon | 2,117 | 2,541 | 1,003 | 959 | 1,399 | 1,466 | 25 | 255 |
| Washington | 3,257 | 3,007 | 1,996 | 746 | 1,352 | 1,085 | 30 | 505 |
| **Total** | **6,732** | **6,685** | **8,046** | **6,551** | **9,638** | **9,240** | **1,981** | **1,824** |
| U.S. Total | 180,760 | 197,400 | 75,699 | 78,663 | 71,340 | 80,216 | 29,482 | 29,185 |

# . . . By Categories and Uses

(Add 000 bbl.)

| Destination | Electric Utility | | Farm | | Military | | Railroad | | Vessel Bunkering | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 |
| **PAD District 1** | | | | | | | | | | |
| **New England States** | | | | | | | | | | |
| **Connecticut** | 17 | 31 | 85 | 53 | 982 | 0 | 6 | 25 | 17 | 7 |
| **Maine** | 54 | 36 | 114 | 78 | 57 | 49 | 131 | 122 | 88 | 85 |
| **Massachusetts** | 672 | 325 | 68 | 71 | 657 | 294 | 241 | 148 | 177 | 121 |
| **New Hampshire** | 12 | 15 | 41 | 50 | 1 | 4 | 1 | 2 | 11 | 9 |
| **Rhode Island** | 18 | 19 | 11 | 17 | 4 | 23 | 21 | 47 | 31 | 37 |
| **Vermont** | 16 | 17 | 93 | 92 | 0 | 0 | 6 | 15 | 5 | 6 |
| **Central Atlantic States** | | | | | | | | | | |
| **Delaware** | 74 | 120 | 127 | 97 | 0 | 49 | 27 | 21 | 5 | 9 |
| **District of Columbia** | 247 | 713 | 0 | 0 | 311 | 58 | 72 | 17 | 0 | 0 |
| **Maryland** | 589 | 531 | 349 | 416 | 301 | 426 | 486 | 622 | 497 | 579 |
| **New Jersey** | 283 | 949 | 128 | 226 | 104 | 142 | 517 | 291 | 1,724 | 1,496 |
| **New York** | 954 | 897 | 973 | 923 | 233 | 228 | 928 | 1,208 | 626 | 802 |
| **Pennsylvania** | 1,410 | 1,686 | 989 | 1,057 | 84 | 163 | 1,522 | 2,959 | 309 | 321 |
| **Lower Atlantic States** | | | | | | | | | | |
| **Florida** | 367 | 2,088 | 583 | 744 | 78 | 60 | 1,662 | 1,748 | 2,965 | 4,574 |
| **Georgia** | 219 | 439 | 729 | 715 | 87 | 272 | 2,119 | 1,909 | 580 | 389 |
| **North Carolina** | 277 | 433 | 1,527 | 1,004 | 41 | 94 | 985 | 916 | 100 | 87 |
| **South Carolina** | 145 | 499 | 561 | 661 | 54 | 130 | 442 | 384 | 93 | 192 |
| **Virginia** | 291 | 574 | 450 | 351 | 261 | 440 | 2,141 | 2,195 | 586 | 630 |
| **West Virginia** | 455 | 810 | 108 | 79 | 0 | 2 | 1,206 | 1,487 | 158 | 189 |
| **Total** | **6,100** | **10,182** | **6,936** | **6,634** | **3,255** | **2,434** | **12,513** | **14,116** | **7,972** | **9,533** |
| PAD District 2 | | | | | | | | | | |
| Illinois | 386 | 387 | 3,254 | 2,965 | 25 | 21 | 4,751 | 5,230 | 94 | 149 |
| Indiana | 504 | 693 | 2,428 | 2,175 | 27 | 81 | 3,422 | 3,385 | 101 | 110 |
| Iowa | 63 | 2 | 3,455 | 3,305 | 38 | 46 | 2,184 | 1,007 | 35 | 25 |
| Kansas | 228 | 62 | 2,024 | 1,986 | 18 | 36 | 4,205 | 3,810 | 0 | 1 |
| Kentucky | 270 | 306 | 673 | 611 | 20 | 30 | 2,662 | 3,232 | 2,735 | 2,202 |
| Michigan | 317 | 604 | 2,264 | 3,003 | 141 | 323 | 1,222 | 1,784 | 52 | 70 |
| Minnesota | 8 | 52 | 3,935 | 3,467 | 20 | 9 | 1,742 | 1,524 | 239 | 323 |
| Missouri | 116 | 45 | 3,885 | 2,987 | 29 | 43 | 2,699 | 1,375 | 691 | 674 |
| Nebraska | 28 | 93 | 2,888 | 2,646 | 9 | 5 | 1,025 | 896 | 0 | 0 |
| North Dakota | 78 | 91 | 1,790 | 1,852 | 172 | 6 | 925 | 1,135 | 50 | 0 |
| Ohio | 474 | 572 | 1,701 | 1,842 | 10 | 49 | 5,097 | 6,869 | 33 | 99 |
| Oklahoma | 59 | 32 | 668 | 884 | 0 | 0 | 1,443 | 1,659 | 0 | 0 |
| South Dakota | 92 | 35 | 1,441 | 1,331 | 26 | 21 | 212 | 90 | 0 | 0 |
| Tennessee | 184 | 243 | 772 | 797 | 8 | 9 | 2,796 | 2,921 | 1,396 | 1,940 |
| Wisconsin | 223 | 60 | 2,102 | 2,121 | 12 | 28 | 971 | 1,014 | 88 | 168 |
| Total | 3,030 | 3,277 | 33,280 | 31,972 | 555 | 707 | 35,356 | 35,931 | 5,466 | 5,761 |
| **PAD District 3** | | | | | | | | | | |
| **Alabama** | 33 | 49 | 803 | 1,103 | 9 | 40 | 3,225 | 4,064 | 1,242 | 1,434 |
| **Arkansas** | 217 | 15 | 2,988 | 2,905 | 6 | 16 | 2,751 | 2,698 | 146 | 110 |
| **Louisiana** | 288 | 1,387 | 1,821 | 2,081 | 227 | 1,557 | 2,639 | 3,193 | 4,724 | 6,702 |
| **Mississippi** | 44 | 93 | 1,660 | 2,277 | 5 | 70 | 880 | 1,037 | 657 | 447 |
| **New Mexico** | 112 | 150 | 238 | 335 | 16 | 49 | 2,096 | 2,256 | 0 | 0 |
| **Texas** | 685 | 380 | 6,315 | 8,331 | 3,344 | 2,171 | 12,834 | 12,916 | 8,342 | 10,965 |
| **Total** | **1,379** | **2,074** | **13,825** | **17,032** | **3,607** | **3,903** | **24,425** | **26,164** | **15,111** | **19,658** |
| PAD District 4 | | | | | | | | | | |
| Colorado | 68 | 83 | 1,269 | 1,089 | 50 | 95 | 1,882 | 1,655 | 0 | 0 |
| Idaho | 0 | 0 | 719 | 1,009 | 19 | 85 | 570 | 610 | 0 | 0 |
| Montana | 0 | 40 | 839 | 908 | 2 | 4 | 1,402 | 1,455 | 0 | 0 |
| Utah | 27 | 59 | 235 | 156 | 2 | 0 | 1,239 | 1,743 | 0 | 0 |
| Wyoming | 8 | 136 | 271 | 312 | 1 | 4 | 2,810 | 3,963 | 0 | 0 |
| Total | 103 | 318 | 3,333 | 3,474 | 74 | 188 | 7,903 | 9,426 | 0 | 0 |
| **PAD District 5** | | | | | | | | | | |
| **Alaska** | 592 | 544 | 14 | 21 | 220 | 357 | 36 | 116 | 854 | 955 |
| **Arizona** | 75 | 24 | 617 | 837 | 11 | 3 | 1,232 | 1,329 | 0 | 0 |
| **California** | 190 | 865 | 8,293 | 7,450 | 5,232 | 6,155 | 7,138 | 7,894 | 1,860 | 2,566 |
| **Hawaii** | 618 | 789 | 408 | 450 | 2,102 | 3,193 | 15 | 10 | 65 | 66 |
| **Nevada** | 20 | 14 | 79 | 120 | 14 | 12 | 731 | 580 | 0 | 0 |
| **Oregon** | 16 | 36 | 595 | 705 | 21 | 15 | 2,616 | 3,227 | 977 | 761 |
| **Washington** | 11 | 69 | 1,073 | 970 | 110 | 796 | 1,185 | 1,689 | 1,580 | 1,725 |
| **Total** | **1,522** | **2,341** | **11,079** | **10,553** | **7,710** | **10,531** | **12,953** | **14,845** | **5,336** | **6,073** |
| U.S. Total | 12,134 | 18,192 | 68,453 | 69,665 | 15,201 | 17,763 | 93,150 | 100,482 | 33,885 | 41,025 |

# Distillate Sales in 1982 (Continued)

(Add 000 bbl.)

| Destination | On-Highway |  | Off-Highway |  | All Other |  | Total |  |
|---|---|---|---|---|---|---|---|---|
|  | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 |
| **PAD District 1** |  |  |  |  |  |  |  |  |
| New England States |  |  |  |  |  |  |  |  |
| Connecticut | 2,698 | 2,262 | 251 | 380 | 69 | 59 | 20,509 | 19,745 |
| Maine | 1,564 | 1,248 | 243 | 176 | 104 | 109 | 9,189 | 9,266 |
| Massachusetts | 4,745 | 4,419 | 309 | 282 | 123 | 404 | 32,263 | 32,155 |
| New Hampshire | 744 | 692 | 170 | 113 | 11 | 13 | 5,084 | 5,313 |
| Rhode Island | 679 | 590 | 38 | 25 | 70 | 64 | 3,984 | 3,993 |
| Vermont | 352 | 753 | 173 | 222 | 16 | 14 | 2,707 | 3,828 |
| Central Atlantic States |  |  |  |  |  |  |  |  |
| Delaware | 921 | 862 | 134 | 78 | 18 | 35 | 2,753 | 3,133 |
| District of Columbia | 436 | 376 | 9 | 10 | 172 | 308 | 2,215 | 2,125 |
| Maryland | 4,023 | 4,730 | 326 | 571 | 406 | 461 | 16,198 | 18,365 |
| New Jersey | 8,093 | 7,460 | 519 | 562 | 1,270 | 635 | 45,546 | 50,973 |
| New York | 8,353 | 7,227 | 619 | 774 | 424 | 571 | 62,608 | 64,263 |
| Pennsylvania | 15,296 | 15,311 | 2,136 | 2,476 | 508 | 378 | 53,065 | 59,977 |
| Lower Atlantic States |  |  |  |  |  |  |  |  |
| Florida | 13,098 | 12,968 | 310 | 630 | 503 | 1,124 | 22,503 | 29,816 |
| Georgia | 11,801 | 12,067 | 191 | 171 | 397 | 801 | 18,387 | 19,388 |
| North Carolina | 9,789 | 9,526 | 296 | 370 | 165 | 230 | 20,184 | 21,228 |
| South Carolina | 5,682 | 4,968 | 197 | 193 | 200 | 301 | 9,462 | 9,841 |
| Virginia | 8,286 | 9,038 | 572 | 574 | 128 | 376 | 21,943 | 23,636 |
| West Virginia | 2,381 | 2,833 | 248 | 327 | 199 | 210 | 7,659 | 9,450 |
| **Total** | **98,941** | **97,330** | **6,741** | **7,934** | **4,783** | **6,093** | **356,254** | **386,497** |
| PAD District 2 |  |  |  |  |  |  |  |  |
| Illinois | 13,744 | 15,037 | 842 | 826 | 208 | 445 | 32,521 | 34,427 |
| Indiana | 13,821 | 13,599 | 393 | 575 | 40 | 469 | 28,913 | 28,961 |
| Iowa | 6,525 | 6,334 | 479 | 314 | 43 | 63 | 16,212 | 14,374 |
| Kansas | 5,100 | 5,468 | 269 | 331 | 105 | 25 | 13,817 | 13,239 |
| Kentucky | 5,747 | 5,911 | 844 | 947 | 319 | 378 | 17,507 | 18,217 |
| Michigan | 8,181 | 8,230 | 362 | 481 | 251 | 204 | 22,819 | 26,657 |
| Minnesota | 6,341 | 5,957 | 428 | 499 | 40 | 48 | 20,880 | 18,714 |
| Missouri | 9,004 | 8,460 | 1,198 | 732 | 17 | 69 | 20,738 | 18,003 |
| Nebraska | 4,086 | 3,438 | 224 | 199 | 7 | 14 | 9,176 | 8,233 |
| North Dakota | 2,084 | 2,035 | 259 | 190 | 19 | 2 | 7,209 | 7,708 |
| Ohio | 17,092 | 16,663 | 3,283 | 3,195 | 2,075 | 1,770 | 40,250 | 44,959 |
| Oklahoma | 8,251 | 8,143 | 811 | 1,095 | 391 | 77 | 14,557 | 15,519 |
| South Dakota | 1,900 | 1,714 | 102 | 97 | 73 | 4 | 5,131 | 4,406 |
| Tennessee | 9,505 | 9,112 | 321 | 417 | 835 | 958 | 18,764 | 19,512 |
| Wisconsin | 7,072 | 7,230 | 461 | 442 | 45 | 39 | 20,537 | 20,726 |
| Total | 118,453 | 117,331 | 10,276 | 10,340 | 4,468 | 4,565 | 289,033 | 293,655 |
| **PAD District 3** |  |  |  |  |  |  |  |  |
| Alabama | 6,758 | 6,782 | 703 | 919 | 611 | 728 | 15,436 | 17,939 |
| Arkansas | 5,512 | 5,458 | 877 | 733 | 99 | 165 | 13,336 | 13,116 |
| Louisiana | 7,510 | 10,031 | 2,559 | 2,068 | 210 | 775 | 30,858 | 37,964 |
| Mississippi | 5,257 | 5,298 | 693 | 991 | 715 | 815 | 11,849 | 13,487 |
| New Mexico | 3,512 | 5,648 | 489 | 1,733 | 71 | 216 | 7,954 | 12,526 |
| Texas | 32,692 | 31,564 | 7,184 | 5,465 | 1,653 | 1,810 | 90,180 | 90,359 |
| **Total** | **61,241** | **64,981** | **12,505** | **11,909** | **3,359** | **4,509** | **169,613** | **185,391** |
| PAD District 4 |  |  |  |  |  |  |  |  |
| Colorado | 4,211 | 3,458 | 595 | 655 | 104 | 148 | 9,132 | 8,634 |
| Idaho | 1,718 | 1,331 | 233 | 639 | 62 | 118 | 4,496 | 4,775 |
| Montana | 2,473 | 2,384 | 153 | 184 | 36 | 164 | 5,814 | 6,486 |
| Utah | 2,550 | 2,760 | 536 | 527 | 290 | 254 | 6,425 | 7,115 |
| Wyoming | 2,253 | 2,271 | 578 | 883 | 119 | 289 | 11,015 | 12,452 |
| Total | 13,205 | 12,204 | 2,095 | 2,888 | 611 | 973 | 36,884 | 39,462 |
| **PAD District 5** |  |  |  |  |  |  |  |  |
| Alaska | 596 | 1,067 | 424 | 269 | 1,258 | 1,046 | 6,335 | 6,548 |
| Arizona | 4,581 | 5,323 | 276 | 379 | 236 | 102 | 8,102 | 9,741 |
| California | 27,679 | 28,423 | 3,026 | 2,960 | 2,947 | 2,582 | 67,337 | 67,494 |
| Hawaii | 415 | 423 | 154 | 235 | 436 | 428 | 4,570 | 6,043 |
| Nevada | 1,977 | 1,813 | 177 | 158 | 46 | 20 | 3,518 | 3,488 |
| Oregon | 5,339 | 5,651 | 343 | 599 | 569 | 247 | 15,020 | 16,462 |
| Washington | 5,579 | 5,456 | 1,101 | 1,180 | 926 | 467 | 18,200 | 17,695 |
| **Total** | **46,166** | **48,156** | **5,501** | **5,780** | **6,418** | **4,892** | **123,081** | **127,470** |
| U.S. Total | 338,006 | 340,002 | 37,118 | 38,851 | 19,639 | 21,032 | 974,864 | 1,032,476 |

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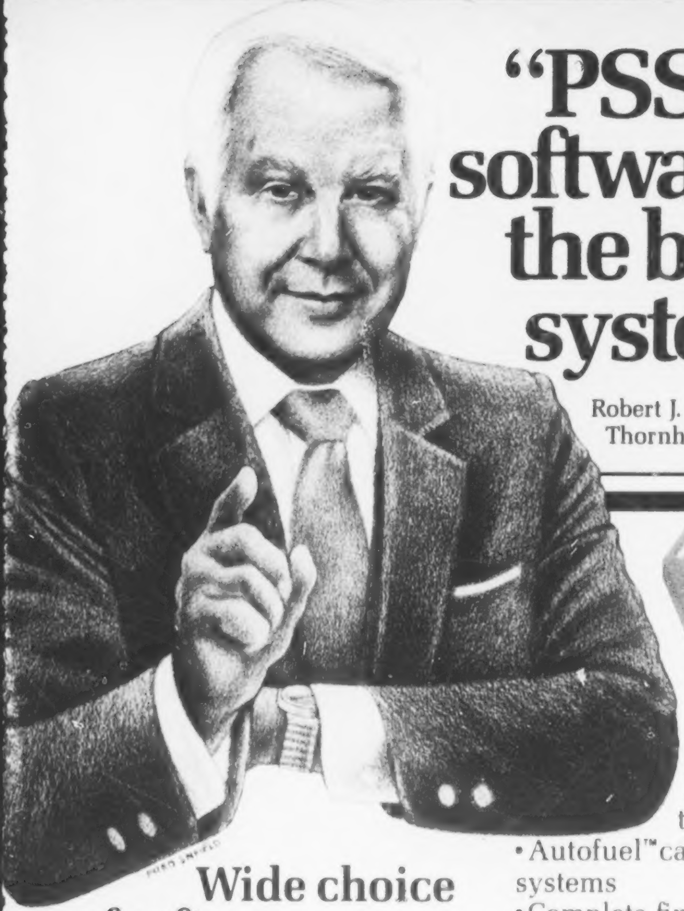
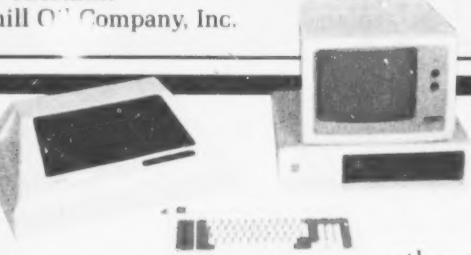
Source: Energy Information Administrations, Petroleum Supply Annual, June 1983



# "PSS had the specific software I needed with the back-up support system I demanded."

Robert J. Thornhill
Thornhill Oil Company, Inc.



## Wide choice of software.

What's more, there's a broad range of programs to choose from. Designed by PSS to meet the special needs of petroleum marketers, they're now available for use on IBM computers, including the new IBM Personal Computer with color screens.

Among them are:

- Service station management
- Liquid and package product inventories
- Order entry, invoicing, warehouse inventory
- Autofuel™ card lock billing systems
- Complete financial accounting packages
- Motor oil/lubricants distributor accounting
- Wholesale bulk plant/terminal automation
- Taxes–excise and sales tax reporting

Each program is complete, but is designed to interface with others as your needs grow. Each is adaptable to hundreds of computer formats.

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PSS now offers you a total computer package based on the IBM Personal Computer and PSS software.

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Philip O. Deputy
President

**PSS**
**PETROLEUM**
**SOFTWARE**
**SYSTEMS, INC.**

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609/921-6700

Princeton, NJ
Mountain View, CA
Mobile, AL
Toronto, Ontario

# Kerosine Sales in 1982

(Add 000 bbl.)

| Destination | Residential | | Commercial | | Industrial | | Farm | | All Other | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 |
| **PAD District 1** | | | | | | | | | | | | |
| New England States | | | | | | | | | | | | |
| Connecticut | 263 | 195 | 1 | 11 | 2 | 6 | 0 | 0 | 115 | 203 | 381 | 415 |
| Maine | 272 | 233 | 22 | 45 | 4 | 1 | 4 | 1 | 14 | 10 | 316 | 290 |
| Massachusetts | 510 | 181 | 28 | 9 | 13 | 13 | 1 | 1 | 216 | 226 | 768 | 430 |
| New Hampshire | 234 | 206 | 8 | 4 | 0 | 0 | 1 | 0 | 5 | 5 | 246 | 215 |
| Rhode Island | 123 | 47 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 4 | 125 | 54 |
| Vermont | 154 | 177 | 26 | 26 | 0 | 0 | 5 | 8 | 2 | 1 | 187 | 212 |
| Central Atlantic States | | | | | | | | | | | | |
| Delaware | 324 | 256 | 12 | 8 | 1 | 0 | 2 | 2 | 1 | 1 | 340 | 267 |
| District of Columbia | 4 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 69 | 6 | 73 |
| Maryland | 664 | 614 | 88 | 16 | 19 | 15 | 9 | 7 | 25 | 227 | 805 | 879 |
| New Jersey | 353 | 193 | 96 | 57 | 140 | 80 | 0 | 0 | 817 | 1,131 | 1,406 | 1,461 |
| New York | 1,836 | 1,509 | 199 | 158 | 131 | 82 | 23 | 19 | 372 | 304 | 2,561 | 2,072 |
| Pennsylvania | 2,194 | 1,992 | 236 | 183 | 331 | 118 | 25 | 44 | 140 | 314 | 2,932 | 2,651 |
| Lower Atlantic States | | | | | | | | | | | | |
| Florida | 227 | 574 | 221 | 64 | 4 | 7 | 12 | 2 | 562 | 101 | 1,026 | 748 |
| Georgia | 62 | 34 | 143 | 18 | 2 | 10 | 12 | 1 | 94 | 209 | 313 | 272 |
| North Carolina | 2,025 | 1,939 | 33 | 45 | 36 | 34 | 175 | 208 | 63 | 130 | 2,332 | 2,356 |
| South Carolina | 526 | 553 | 25 | 29 | 11 | 21 | 14 | 46 | 29 | 30 | 605 | 679 |
| Virginia | 1,048 | 919 | 34 | 37 | 70 | 68 | 53 | 65 | 63 | 83 | 1,268 | 1,172 |
| West Virginia | 312 | 275 | 16 | 16 | 81 | 47 | 1 | 0 | 33 | 24 | 443 | 362 |
| **Total** | **11,131** | **9,899** | **1,191** | **728** | **846** | **505** | **337** | **404** | **2,557** | **3,072** | **16,060** | **14,608** |
| **PAD District 2** | | | | | | | | | | | | |
| Illinois | 335 | 149 | 7 | 14 | 50 | 249 | 18 | 34 | 29 | 220 | 439 | 666 |
| Indiana | 343 | 537 | 18 | 9 | 119 | 82 | 61 | 67 | 50 | 14 | 591 | 709 |
| Iowa | 299 | 235 | 36 | 14 | 14 | 10 | 61 | 101 | 40 | 14 | 450 | 374 |
| Kansas | 18 | 10 | 7 | 5 | 25 | 43 | 7 | 24 | 169 | 158 | 226 | 240 |
| Kentucky | 527 | 474 | 83 | 125 | 119 | 110 | 47 | 86 | 364 | 369 | 1,140 | 1,164 |
| Michigan | 559 | 206 | 18 | 19 | 72 | 82 | 18 | 9 | 76 | 676 | 743 | 992 |
| Minnesota | 191 | 115 | 4 | 5 | 0 | 0 | 32 | 29 | 4 | 0 | 231 | 149 |
| Missouri | 123 | 76 | 584 | 398 | 11 | 14 | 40 | 53 | 22 | 5 | 780 | 546 |
| Nebraska | 29 | 29 | 14 | 10 | 14 | 14 | 32 | 24 | 4 | 10 | 93 | 87 |
| North Dakota | 22 | 14 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 14 |
| Ohio | 912 | 1,016 | 61 | 67 | 191 | 331 | 47 | 76 | 1,352 | 1,261 | 2,563 | 2,751 |
| Oklahoma | 14 | 15 | 242 | 38 | 50 | 43 | 18 | 91 | 137 | 115 | 461 | 302 |
| South Dakota | 22 | 14 | 11 | 0 | 0 | 0 | 4 | 10 | 0 | 0 | 37 | 24 |
| Tennessee | 541 | 901 | 133 | 72 | 14 | 67 | 0 | 0 | 411 | 484 | 1,099 | 1,524 |
| Wisconsin | 79 | 72 | 130 | 5 | 25 | 29 | 4 | 9 | 4 | 10 | 242 | 125 |
| **Total** | **4,014** | **3,863** | **1,352** | **781** | **704** | **1,074** | **389** | **613** | **2,662** | **3,336** | **9,124** | **9,667** |
| **PAD District 3** | | | | | | | | | | | | |
| Alabama | 534 | 165 | 331 | 57 | 204 | 43 | 25 | 0 | 636 | 241 | 1,730 | 526 |
| Arkansas | 51 | 42 | 76 | 57 | 204 | 185 | 25 | 28 | 153 | 43 | 509 | 355 |
| Louisiana | 76 | 28 | 331 | 2,530 | 1,501 | 910 | 280 | 185 | 3,562 | 3,212 | 5,750 | 6,865 |
| Mississippi | 51 | 29 | 127 | 14 | 102 | 14 | 25 | 0 | 25 | 43 | 330 | 100 |
| New Mexico | 178 | 85 | 153 | 526 | 76 | 28 | 0 | 0 | 178 | 128 | 585 | 767 |
| Texas | 356 | 114 | 1,298 | 6,808 | 1,425 | 810 | 153 | 256 | 6,895 | 2,757 | 10,127 | 10,745 |
| **Total** | **1,246** | **483** | **2,316** | **9,992** | **3,512** | **1,990** | **508** | **469** | **11,449** | **6,424** | **19,031** | **19,358** |
| **PAD District 4** | | | | | | | | | | | | |
| Colorado | 170 | 60 | 23 | 9 | 8 | 0 | 46 | 43 | 15 | 103 | 262 | 215 |
| Idaho | 0 | 0 | 8 | 0 | 15 | 8 | 0 | 0 | 8 | 9 | 31 | 17 |
| Montana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 17 | 0 | 26 |
| Utah | 46 | 26 | 6 | 60 | 23 | 9 | 0 | 0 | 77 | 60 | 192 | 155 |
| Wyoming | 0 | 8 | [illegible] | 0 | 8 | 0 | 0 | 0 | 116 | 61 | 139 | 69 |
| **Total** | **216** | **94** | **92** | **69** | **54** | **17** | **46** | **52** | **216** | **250** | **627** | **482** |
| **PAD District 5** | | | | | | | | | | | | |
| Alaska | 0 | 0 | 24 | 0 | 1,220 | 0 | 0 | 0 | 18 | 36 | 1,262 | 36 |
| Arizona | 0 | 0 | 12 | 18 | 0 | 89 | 0 | 0 | 6 | 0 | 18 | 107 |
| California | 18 | 71 | 324 | 552 | 66 | 107 | 60 | 53 | 66 | 303 | 534 | 1,086 |
| Hawaii | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nevada | 12 | 36 | 6 | 18 | 0 | 0 | 0 | 0 | 0 | 18 | 18 | 72 |
| Oregon | 60 | 71 | 12 | 53 | 0 | 0 | 6 | 0 | 18 | 18 | 96 | 142 |
| Washington | 72 | 535 | 18 | 18 | 78 | 89 | 0 | 0 | 24 | 106 | 192 | 748 |
| **Total** | **162** | **713** | **396** | **659** | **1,364** | **285** | **66** | **53** | **132** | **481** | **2,121** | **2,191** |
| **United States Total** | **16,769** | **15,052** | **5,347** | **12,229** | **6,480** | **3,871** | **1,346** | **1,591** | **17,016** | **13,563** | **46,963** | **46,306** |

Source: Energy Information Administration, Petroleum Supply Annual, June 1983

BURLINGTON TOWN HALL

# SUPER COMBO.

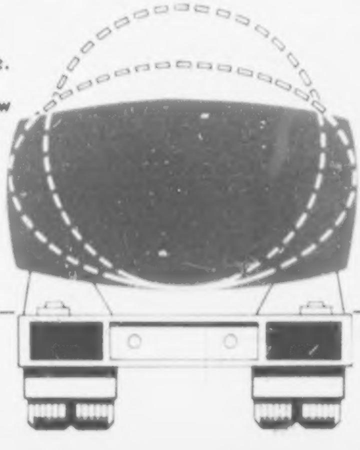
## Tech Weld dual-equipment aluminum tank delivers better on the bottom line.

More and more inquiries are coming to us from operators about the advantages of a Tech Weld combo aluminum tank. Not surprising. Our dual equipment combo, for instance, weighs less than a comparable steel tank so its payload on every delivery is greater. And the very fact it is of aluminum construction means there's no rusting to shorten its life span.

**You get better design with Tech Weld.** Our unique profile has a lower center of gravity for safer cornering and maneuverability. And, of course, if you prefer a steel body, you still have Tech Weld's superior quality features on your side including an aluminum rear equipment door.

**Unsurpassed 5-year warranty is another Tech Weld advantage.** Our time-proven Z-Bend stiffened head and baffle design acts as an internal beam giving extra columnar strength.

**For all-around rugged performance and profitable pay-back,** it's a Tech Weld tank. Available in a variety of sizes and models in steel, stainless and aluminum. Contact your nearest Tech Weld Distributor for detailed information.



**The Tech Weld profile. Ordinary tanks are superimposed to show our lower center of gravity.**

TECH WELD

Tech Weld Corporation, Burlington, Mass. 01803 (617) 272-1400

# Residual Fuel Oil Sales in 1982 . . .

(Add 000 bbl.)

| | Commercial | | Industrial | | Oil Company | | Electric Utility | | Military | |
|---|---|---|---|---|---|---|---|---|---|---|
| Destination | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 |
| **PAD District 1** | | | | | | | | | | |
| New England States | | | | | | | | | | |
| Connecticut | 790 | 796 | 3,082 | 2,435 | 39 | 35 | 17,282 | 18,598 | 0 | 0 |
| Maine | 665 | 364 | 11,440 | 5,290 | 0 | 0 | 3,034 | 3,774 | 32 | 0 |
| Massachusetts | 4,386 | 3,180 | 5,154 | 3,925 | 2 | 74 | 31,130 | 40,654 | 968 | 98 |
| New Hampshire | 650 | 474 | 611 | 421 | 0 | 0 | 2,815 | 3,891 | 2 | 0 |
| Rhode Island | 233 | 192 | 643 | 734 | 0 | 0 | 896 | 1,241 | 7 | 0 |
| Vermont | 119 | 155 | 253 | 192 | 0 | 0 | 0 | 0 | 0 | 0 |
| Central Atlantic States | | | | | | | | | | |
| Delaware | 1,261 | 1,980 | 1,058 | 1,225 | 0 | 0 | 3,362 | 4,989 | 73 | 0 |
| District of Columbia | 114 | 79 | 1 | 1 | 0 | 0 | 0 | 110 | 1,371 | 182 |
| Maryland | 469 | 210 | 1,280 | 1,454 | 13 | 99 | 5,645 | 5,759 | 1,510 | 63 |
| New Jersey | 4,797 | 6,468 | 4,387 | 5,099 | 4,280 | 4,192 | 7,959 | 10,085 | 98 | 126 |
| New York | 19,482 | 13,900 | 10,347 | 7,549 | 112 | 221 | 56,114 | 64,047 | 714 | 932 |
| Pennsylvania | 1,148 | 1,606 | 5,602 | 5,263 | 2,546 | 2,278 | 9,458 | 15,650 | 10 | 1,085 |
| Lower Atlantic States | | | | | | | | | | |
| Florida | 397 | 825 | 4,511 | 5,798 | 7 | 2,012 | 52,155 | 74,640 | 54 | 119 |
| Georgia | 5 | 9 | 3,083 | 3,156 | 16 | 16 | 57 | 388 | 90 | 49 |
| North Carolina | 192 | 103 | 5,525 | 5,141 | 3 | 7 | 0 | 0 | 32 | 133 |
| South Carolina | 28 | 102 | 2,085 | 2,555 | 4 | 43 | 6 | 1,357 | 46 | 49 |
| Virginia | 537 | 384 | 2,805 | 2,608 | 53 | 66 | 2,974 | 5,681 | 428 | 293 |
| West Virginia | 3 | 2 | 1,127 | 726 | 313 | 273 | 0 | 0 | 0 | 0 |
| **Total** | **35,276** | **30,829** | **62,994** | **53,572** | **7,380** | **9,316** | **192,887** | **250,864** | **5,435** | **3,129** |
| **PAD District 2** | | | | | | | | | | |
| Illinois | 1,071 | 1,260 | 2,127 | 4,922 | 5,273 | 5,033 | 6,897 | 10,083 | 22 | 0 |
| Indiana | 92 | 79 | 1,689 | 4,511 | 3,045 | 2,846 | 0 | 0 | 0 | 98 |
| Iowa | 29 | 28 | 292 | 58 | 0 | 0 | 0 | 7 | 0 | 7 |
| Kansas | 3 | 0 | 486 | 363 | 271 | 319 | 233 | 14 | 0 | 0 |
| Kentucky | 4 | 18 | 707 | 651 | 476 | 229 | 0 | 0 | 10 | 252 |
| Michigan | 225 | 114 | 1,795 | 1,555 | 824 | 350 | 1,304 | 6,490 | 0 | 217 |
| Minnesota | 179 | 19 | 1,218 | 954 | 231 | 196 | 17 | 0 | 0 | 0 |
| Missouri | 32 | 29 | 271 | 337 | 310 | 262 | 123 | 0 | 115 | 6 |
| Nebraska | 105 | 17 | 93 | 37 | 0 | 0 | 0 | 0 | 0 | 0 |
| North Dakota | 216 | 61 | 301 | 812 | 312 | 256 | 0 | 0 | 325 | 0 |
| Ohio | 185 | 28 | 1,494 | 4,023 | 440 | 954 | 100 | 234 | 0 | 14 |
| Oklahoma | 0 | 0 | 44 | 108 | 583 | 637 | 0 | 0 | 0 | 0 |
| South Dakota | 13 | 14 | 32 | 132 | 0 | 0 | 0 | 2 | 0 | 0 |
| Tennessee | 106 | 77 | 583 | 1,033 | 24 | 28 | 0 | 0 | 0 | 0 |
| Wisconsin | 39 | 12 | 1,978 | 640 | 143 | 109 | 0 | 10 | 0 | 0 |
| **Total** | **2,299** | **1,756** | **13,110** | **20,136** | **11,932** | **11,219** | **8,674** | **16,840** | **472** | **594** |
| **PAD District 3** | | | | | | | | | | |
| Alabama | 166 | 0 | 3,738 | 2,458 | 46 | 20 | 0 | 0 | 0 | 0 |
| Arkansas | 146 | 150 | 1,547 | 1,759 | 0 | 0 | 108 | 540 | 0 | 0 |
| Louisiana | 17,247 | 15,529 | 8,058 | 10,601 | 1,998 | 2,608 | 1,118 | 2,825 | 0 | 37 |
| Mississippi | 29 | 2,774 | 2,242 | 773 | 514 | 776 | 284 | 2,035 | 0 | 0 |
| New Mexico | 0 | 0 | 646 | 791 | 0 | 0 | 68 | 47 | 0 | 0 |
| Texas | 1,884 | 2,550 | 18,215 | 13,377 | 9,625 | 15,035 | 795 | 1,284 | 144 | 407 |
| **Total** | **19,472** | **21,003** | **34,446** | **29,758** | **12,183** | **18,439** | **2,373** | **6,731** | **144** | **444** |
| **PAD District 4** | | | | | | | | | | |
| Colorado | 5 | 3 | 7 | 125 | 0 | 0 | 0 | 32 | 0 | 0 |
| Idaho | 18 | 29 | 205 | 26 | 0 | 0 | 0 | 0 | 0 | 0 |
| Montana | 5 | 0 | 300 | 462 | 1,349 | 1,996 | 0 | 0 | 0 | 0 |
| Utah | 39 | 0 | 337 | 908 | 487 | 72 | 0 | 52 | 0 | 0 |
| Wyoming | 182 | 5 | 332 | 151 | 1,102 | 1,622 | 0 | 0 | 0 | 0 |
| **Total** | **249** | **37** | **1,181** | **1,672** | **2,938** | **3,590** | **0** | **84** | **0** | **0** |
| **PAD District 5** | | | | | | | | | | |
| Alaska | 3 | 0 | 0 | 1 | 0 | 0 | 298 | 222 | 0 | 7 |
| Arizona | 164 | 36 | 16 | 21 | 0 | 0 | 117 | 170 | 0 | 0 |
| California | 5,697 | 11,529 | 973 | 4,275 | 7,141 | 6,432 | 13,087 | 39,919 | 812 | 933 |
| Hawaii | 110 | 55 | 254 | 290 | 1,627 | 782 | 9,897 | 10,471 | 240 | 127 |
| Nevada | 11 | 25 | 22 | 40 | 0 | 0 | 86 | 185 | 0 | 0 |
| Oregon | 1,544 | 995 | 3,422 | 1,666 | 157 | 99 | 0 | 0 | 220 | 0 |
| Washington | 956 | 770 | 6,201 | 5,592 | 1,953 | 1,893 | 0 | 0 | 506 | 1,774 |
| **Total** | **8,485** | **13,410** | **10,888** | **11,885** | **10,878** | **9,206** | **23,485** | **50,967** | **1,778** | **2,841** |
| **U.S. Total** | **65,781** | **67,035** | **122,619** | **117,024** | **45,319** | **51,870** | **227,419** | **325,486** | **7,829** | **7,008** |

# . . . By Categories and Uses

(Add 000 bbl.)

| Destination | Railroad 1982 | Railroad 1981 | Vessel Bunkering 1982 | Vessel Bunkering 1981 | All Other 1982 | All Other 1981 | Total 1982 | Total 1981 |
|---|---|---|---|---|---|---|---|---|
| **PAD District 1** | | | | | | | | |
| New England States | | | | | | | | |
| Connecticut | 0 | 0 | 6 | 4 | 150 | 83 | 21,349 | 21,951 |
| Maine | 10 | 6 | 620 | 634 | 2 | 22 | 15,803 | 10,090 |
| Massachusetts | 0 | 0 | 546 | 975 | 576 | 767 | 42,762 | 49,673 |
| New Hampshire | 0 | 0 | 28 | 49 | 0 | 0 | 4,106 | 4,835 |
| Rhode Island | 0 | 0 | 12 | 49 | 0 | 11 | 1,791 | 2,227 |
| Vermont | 0 | 0 | 0 | 0 | 0 | 4 | 372 | 351 |
| Central Atlantic States | | | | | | | | |
| Delaware | 0 | 0 | 136 | 292 | 399 | 185 | 6,289 | 8,671 |
| District of Columbia | 0 | 0 | 0 | 0 | 41 | 17 | 1,527 | 389 |
| Maryland | 0 | 0 | 2,831 | 4,729 | 150 | 82 | 11,898 | 12,396 |
| New Jersey | 0 | 0 | 12,029 | 12,287 | 691 | 22 | 34,241 | 38,279 |
| New York | 0 | 0 | 10,922 | 10,922 | 108 | 297 | 97,868 | 97,868 |
| Pennsylvania | 0 | 0 | 1,675 | 4,144 | 350 | 314 | 20,789 | 30,340 |
| Lower Atlantic States | | | | | | | | |
| Florida | 0 | 0 | 5,864 | 6,777 | 91 | 176 | 63,079 | 90,347 |
| Georgia | 0 | 0 | 2,311 | 2,633 | 0 | 0 | 5,562 | 6,251 |
| North Carolina | 0 | 0 | 217 | 292 | 2 | 1 | 5,971 | 5,677 |
| South Carolina | 4 | 4 | 792 | 1,024 | 0 | 8 | 2,965 | 5,142 |
| Virginia | 36 | 2 | 2,708 | 3,949 | 50 | 89 | 9,591 | 13,072 |
| West Virginia | 0 | 0 | 0 | 0 | 0 | 0 | 1,443 | 1,001 |
| Total | 50 | 12 | 32,971 | 48,760 | 2,610 | 2,078 | 330,612 | 398,560 |
| **PAD District 2** | | | | | | | | |
| Illinois | 4 | 7 | 1 | 0 | 112 | 94 | 15.507 | 21.399 |
| Indiana | 0 | 0 | 27 | 93 | 3 | 11 | 4.856 | 7.638 |
| Iowa | 0 | 0 | 0 | 0 | 0 | 0 | 321 | 100 |
| Kansas | 0 | 1 | 0 | 0 | 0 | 0 | 993 | 697 |
| Kentucky | 0 | 0 | 0 | 0 | 0 | 0 | 1,197 | 1,150 |
| Michigan | 44 | 30 | 23 | 55 | 70 | 136 | 4.285 | 8.947 |
| Minnesota | 40 | 0 | 43 | 273 | 4 | 18 | 1,732 | 1.460 |
| Missouri | 0 | 0 | 2 | 0 | 3 | 22 | 856 | 656 |
| Nebraska | 0 | 3 | 0 | 0 | 0 | 0 | 198 | 57 |
| North Dakota | 0 | 0 | 0 | 0 | 17 | 1 | 1,171 | 1,130 |
| Ohio | 0 | 0 | 1 | 37 | 268 | 630 | 2.488 | 5.920 |
| Oklahoma | 0 | 0 | 0 | 0 | 73 | 0 | 700 | 745 |
| South Dakota | 0 | 0 | 0 | 0 | 6 | 13 | 51 | 161 |
| Tennessee | 20 | 32 | 2 | 45 | 13 | 24 | 748 | 1.239 |
| Wisconsin | 3 | 32 | 27 | 46 | 22 | 22 | 2.212 | 871 |
| Total | 111 | 105 | 126 | 549 | 591 | 971 | 37,315 | 52,170 |
| **PAD District 3** | | | | | | | | |
| Alabama | 0 | 0 | 2,400 | 2,208 | 0 | 0 | 6,350 | 4,686 |
| Arkansas | 0 | 0 | 0 | 0 | 2 | 0 | 1,803 | 2,449 |
| Louisiana | 0 | 0 | 19,154 | 23,899 | 685 | 188 | 48,280 | 55,687 |
| Mississippi | 0 | 0 | 2,501 | 3,117 | 0 | 250 | 5,570 | 9,725 |
| New Mexico | 0 | 0 | 0 | 0 | 2 | 18 | 716 | 856 |
| Texas | 0 | 58 | 31,389 | 35,719 | 17 | 241 | 62,069 | 68,671 |
| Total | 0 | 58 | 55,444 | 64,943 | 706 | 697 | 124,769 | 142,075 |
| **PAD District 4** | | | | | | | | |
| Colorado | 0 | 0 | 0 | 0 | 2 | 5 | 14 | 165 |
| Idaho | 0 | 0 | 0 | 0 | 0 | 0 | 223 | 55 |
| Montana | 0 | 0 | 0 | 0 | 14 | 61 | 1 668 | 2.519 |
| Utah | 0 | 0 | 0 | 0 | 23 | 32 | 886 | 1.064 |
| Wyoming | 9 | 3 | 0 | 0 | 9 | 228 | 1 634 | 2.009 |
| Total | 9 | 3 | 0 | 0 | 48 | 326 | 4,426 | 5,812 |
| **PAD District 5** | | | | | | | | |
| Alaska | 0 | 0 | 0 | 0 | 0 | 19 | 301 | 249 |
| Arizona | 0 | 0 | 0 | 0 | 0 | 0 | 297 | 227 |
| California | 0 | 0 | 53,250 | 63,149 | 432 | 226 | 81,392 | 126,463 |
| Hawaii | 0 | 0 | 880 | 1,116 | 335 | 470 | 13,323 | 13,311 |
| Nevada | 0 | 0 | 0 | 0 | 0 | 0 | 119 | 250 |
| Oregon | 0 | 0 | 5,551 | 3,644 | 33 | 3 | 10,927 | 8,407 |
| Washington | 0 | 0 | 4,364 | 6,471 | 29 | 5 | 14,029 | 16,505 |
| Total | 0 | 0 | 64,045 | 74,380 | 829 | 723 | 120,388 | 163,413 |
| U.S. Total | 170 | 178 | 152,586 | 188,632 | 4,784 | 4,705 | 626,510 | 762,030 |

Source: Energy Information Administration, Petroleum Supply Annual, June 1983

# U.S. Sales of Distillate Fuel Oil By Uses

(Add 000 bbl.)

| Year | Residential | Commercial | Industrial | Farm | Oil Company | Electric Utilities | Diesel | Other | Total |
|---|---|---|---|---|---|---|---|---|---|
| 1982 | 180.760 (b) | 75.669 (b) | 71.340 (c) | 68.453 (c) | 29.482 (c) | 12.134 | 375.124 (e) | 164.253 (f) | 974.864 |
| 1981 (a) | 197.400 (b) | 78.663 (b) | 80.216 (c) | 69.665 (d) | 29.185 (c) | 18.192 | 378.853 (e) | 180.302 (f) | 1.032.476 |
| 1980 (a) | 227.261 (b) | 92.136 (b) | 86.089 (c) | 73.615 (d) | 24.205 (c) | 31.812 | 377.136 (e) | 176.355 (f) | 1.086.709 |
| 1979 (a) | 270.306 (b) | 99.723 (b) | 99.583 (c) | 84.926 (d) | 22.043 (c) | 46.579 | 392.614 (e) | 198.600 (f) | 1.214.374 |

(a) In 1979, DOE changed its sampling and reporting formulas. It eliminated the "heating oils" category and added a new farm category. The sum of the first four categories is roughly related to the old heating oil category but cannot be construed as comparable. (b) Primarily space and water heating. (c) Includes some space heating but primarily equipment fuel. (d) Includes space and water heating, crop drying, farm equipment, etc. (e) Includes 37.118.000 bbl. of off-highway diesel in 1982. (f) In 1982, consisted of 93.150 railroad, 33.885 vessel bunkering, 37.118 military and 19.639 miscellaneous. For similar data on 1981, 1980, and 1979, see the 1983 Factbook. The pre-1979 categories are as follows.

| Year | Heating Oils | Industrial Use | Oil Company Use | Electric Utilities | Railroads | Vessel Bunkering | Military Use | Diesel Fuel | All Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 1978 | 533.069 | 94.797 | 19.410 | 77.175 | 99.841 | 37.591 | 20.320 | 367.799 | 14.509 | 1.257.061 |
| 1977 | 538.845 | 96.502 | 19.954 | 76.681 | 99.306 | 33.512 | 20.121 | 330.864 | 14.394 | 1.230.179 |
| 1976 | 543.895 | 79.956 | 14.523 | 60.570 | 97.467 | 28.330 | 17.574 | 297.249 | 11.365 | 1.150.929 |
| 1975 | 488.388 | 63.993 | 13.633 | 63.420 | 93.191 | 26.138 | 18.004 | 266.903 | 10.096 | 1.043.746 |
| 1970 | 521.135 | 43.668 | 11.518 | 24.770 | 88.416 | 19.503 | 12.447 | 194.919 | 10.874 | 927.250 |
| 1965 | 475.992 | 42.484 | 10.430 | 3.661 | 86.436 | 15.532 | 14.953 | 124.122 | 13.281 | 786.891 |
| 1960 | 438.010 | 34.271 | 8.347 | 4.742 | 86.490 | 18.730 | 10.793 | 74.562 | 7.380 | 683.325 |

Source: Deliveries of fuel oil and kerosine in 1981, Petroleum Supply Annual, Department of Energy, July, 1982.

# U.S. Sales of Residual Fuel Oil By Uses

(Add 000 bbl.)

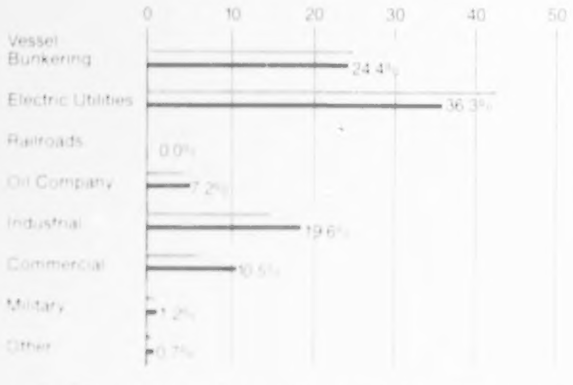
| Year | Vessel Bunkering | Electric Utilities | Railroads | Oil Companies | Industrial | Commercial | Military | Other | Total |
|---|---|---|---|---|---|---|---|---|---|
| 1982 | 152.586 | 227.419 | 170 | 45.319 | 122.619 | 65.781 | 7.829 | 4.784 | 626.510 |
| 1981 (a) | 188.632 | 325.486 | 178 | 51.870 | 117.024 | 67.035 | 7.008 | 4.795 | 762.030 |
| 1980 (a) | 213.131 | 390.105 | 665 | 59.519 | 163.564 | 98.034 | 8.066 | 4.382 | 937.466 |
| 1979 (a) | 190.543 | 486.636 | 245 | 51.062 | 198.759 | 82.729 | 7.736 | 16.900 | 1.034.610 |

(a) In 1979, DOE changed its sampling and reporting formulas in such a way that none of the new data are directly comparable to the pre-1979 data, which follow. Also, in its 1981 update, DOE revised the totals for 1979 and 1980.

| Year | Vessel Bunkering | Electric Utilities | Railroads | Oil Company | Industrial Use | Heating Oils | Military Use | All Other | Total |
|---|---|---|---|---|---|---|---|---|---|
| 1978 | 157.495 | 533.193 | 206 | 57.690 | 169.403 | 164.536 | 16.583 | 4.127 | 1.103.233 |
| 1977 | 128.966 | 569.429 | 329 | 60.582 | 171.967 | 168.279 | 16.646 | 4.729 | 1.129.927 |
| 1976 | 117.458 | 492.974 | 423 | 58.212 | 153.596 | 178.139 | 18.561 | 5.785 | 1.025.148 |
| 1975 | 96.673 | 454.935 | 583 | 50.487 | 116.675 | 154.103 | 19.068 | 6.066 | 898.572 |
| 1970 | 89.850 | 312.420 | 2.222 | 38.318 | 139.647 | 185.031 | 28.704 | 7.925 | 804.287 |
| 1965 | 73.639 | 114.884 | 4.001 | 34.354 | 140.602 | 156.254 | 40.380 | 10.004 | 574.118 |
| 1960 | 94.084 | 85.408 | 5.610 | 45.061 | 157.270 | 125.088 | 31.724 | 6.291 | 550.536 |

## Sales of Residuals by Use as Percent of Total

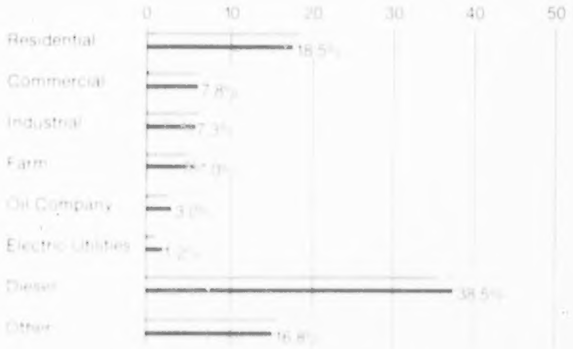
1982 = 626.510.000 bbl.



Source: Deliveries of Fuel Oil and Kerosine in 1982, Energy Information Administration, Petroleum Supply Annual, June 1983.

## Sales of Distillates by Use as Percent of Total

1982 = 974.864.000 bbl.



Source: Deliveries of Fuel Oil and Kerosine in 1982, Energy Information Administration, Petroleum Supply Annual, June 1983.

# World Oil Production by Area

(Add 000 bbl.)

| Year | United States | Canada | Latin American | Western Europe | Middle East | Africa | Asia-Pacific | Total Free World | Communist Nations | Total World |
|---|---|---|---|---|---|---|---|---|---|---|
| 1975 | 3,056,779 | 520,666 | 1,603,333 | 199,950 | 7,160,993 | 1,826,255 | 806,329 | 15,174,305 | 4,328,030 | 19,502,335 |
| 1976 | 2,976,180 | 488,680 | 1,625,069 | 311,858 | 8,115,708 | 2,134,861 | 922,818 | 16,575,174 | 4,616,366 | 21,191,540 |
| 1977 | 3,009,265 | 482,021 | 1,647,362 | 489,328 | 8,186,851 | 2,276,007 | 1,017,244 | 17,108,078 | 4,792,617 | 21,900,695 |
| 1978 | 3,175,927 | 483,260 | 1,736,427 | 643,149 | 7,884,927 | 2,233,791 | 1,037,520 | 17,195,001 | 4,963,250 | 22,158,251 |
| 1979 | 3,114,545 | 546,040 | 1,919,535 | 828,550 | 7,868,670 | 2,423,600 | 1,051,200 | 17,752,140 | 5,118,030 | 22,870,170 |
| 1980 | 3,146,502 | 521,184 | 2,036,058 | 893,406 | 6,735,498 | 2,226,378 | 1,000,278 | 16,559,304 | 5,206,350 | 21,765,654 |
| 1981 | 3,128,780 | 469,025 | 2,179,415 | 955,570 | 5,749,480 | 1,672,065 | 1,027,110 | 15,181,445 | 5,192,125 | 20,373,570 |
| 1982 | 3,156,715 | 452,965 | 2,255,355 | 1,085,145 | 4,581,480 | 1,622,790 | 961,410 | 14,116,160 | 5,278,995 | 19,395,155 |

Source: American Petroleum Institute Data Book

# World Crude Oil Reserves by Area

(Add 000 bbl.)

| Year (a) | United States | Canada | Latin America | Middle East | Africa | Asia-Pacific | Western Europe | Total Free World | Communist Nations | Total World |
|---|---|---|---|---|---|---|---|---|---|---|
| 1976 | 32,682,127 | 6,653,002 | 35,368,000 | 368,410,570 | 65,085,220 | 21,234,230 | 25,487,700 | 554,920,849 | 103,000,000 | 657,920,849 |
| 1977 | 30,942,166 | 6,257,082 | 29,608,950 | 367,681,220 | 60,570,200 | 19,391,140 | 24,538,810 | 538,989,568 | 101,100,000 | 640,089,568 |
| 1978 | 29,486,402 | 5,970,872 | 40,370,000 | 366,166,000 | 59,200,150 | 19,749,270 | 26,862,500 | 547,805,194 | 98,000,000 | 645,805,194 |
| 1979 | 27,803,760 | 6,860,000 | 41,246,500 | 369,996,000 | 57,892,125 | 20,007,200 | 23,966,000 | 547,771,585 | 94,000,000 | 641,771,585 |
| 1980 | 27,051,289 | 6,800,000 | 56,472,500 | 361,947,300 | 57,072,100 | 19,355,200 | 23,476,400 | 522,174,789 | 90,000,000 | 642,174,789 |
| 1981 | 29,805,000 | 6,400,000 | 69,489,837 | 362,071,000 | 55,148,375 | 19,630,500 | 23,085,000 | 565,629,712 | 86,300,000 | 651,929,712 |
| 1982 | 29,426,000 | 7,300,000 | 84,982,270 | 362,839,950 | 56,171,630 | 19,150,800 | 24,634,500 | 584,505,150 | 85,845,000 | 670,350,150 |
| 1983 | 29,785,000 | 7,020,000 | 74,482,066 | 369,285,893 | 57,821,690 | 19,756,077 | 22,923,680 | 585,074,406 | 85,115,000 | 670,189,406 |

(a) As of Jan. 1 of each year.
Source: American Petroleum Institute Data Book.

# World Crude Oil Refining Capacity by Area

(barrels per day)

| Year | United States | Other Western Hemisphere | Total Western Hemisphere | Middle East | Africa | Asia-Pacific | Europe | Total Free World | Sino Soviet Bloc | Total World |
|---|---|---|---|---|---|---|---|---|---|---|
| 1976 | 15,236,621 | 9,713,093 | 24,949,714 | 3,284,951 | 1,328,200 | 9,868,344 | 19,972,306 | 59,403,515 | 12,406,000 | 71,809,515 |
| 1977 | 16,398,372 | 10,015,186 | 26,413,558 | 3,347,855 | 1,444,400 | 10,047,965 | 20,859,376 | 62,113,154 | 13,067,810 | 75,180,964 |
| 1978 | 17,047,724 | 10,592,020 | 27,352,020 | 3,506,484 | 1,467,157 | 10,176,819 | 20,728,204 | 63,352,984 | 13,938,000 | 77,290,984 |
| 1979 | 17,440,885 | 10,273,030 | 27,713,915 | 3,546,029 | 1,667,608 | 10,284,966 | 20,328,614 | 63,541,132 | 14,748,000 | 78,289,132 |
| 1980 | 17,988,121 | 10,683,671 | 28,671,792 | 3,518,080 | 1,666,108 | 10,386,375 | 20,243,747 | 64,486,102 | 15,346,000 | 79,832,102 |
| 1981 | 18,620,520 | 10,716,881 | 29,337,401 | 3,729,646 | 1,697,658 | 10,554,691 | 20,205,799 | 65,524,895 | 16,036,500 | 81,561,395 |
| 1982 | 17,889,734 | 10,720,055 | 28,609,789 | 3,312,152 | 1,761,870 | 10,966,825 | 19,444,519 | 64,095,155 | 16,533,000 | 80,628,155 |
| 1983 | 16,800,000 | 9,873,816 | 26,673,816 | 3,685,333 | 1,822,015 | 10,902,204 | 17,124,989 | 60,268,447 | 16,873,000 | 77,141,447 |

Source: America Petroleum Institute Data Book

# World Natural Gas Production by Area

(Add 000,000 cubic feet)

| Year | United States | Canada | Latin America | Middle East | Africa | Asia-Pacific | Western Europe | Total Free World | Communist Nations | Total World |
|---|---|---|---|---|---|---|---|---|---|---|
| 1975 | 20,108,661 | 3,075,693 | 1,735,060 | 1,436,210 | 670,402 | 938,365 | 5,966,659 | 33,931,050 | 13,276,275 | 47,207,325 |
| 1976 | 19,952,438 | 3,067,353 | 1,722,106 | 1,492,772 | 905,792 | 1,173,878 | 6,343,593 | 34,657,932 | 14,801,281 | 49,459,213 |
| 1977 | 20,025,463 | 3,230,672 | 1,865,734 | 1,506,982 | 919,464 | 1,329,016 | 6,502,502 | 35,379,833 | 14,720,257 | 50,100,090 |
| 1978 | 19,974,033 | 3,128,056 | 2,012,912 | 1,579,478 | 1,117,416 | 1,469,154 | 6,649,855 | 35,930,904 | 15,818,398 | 51,749,302 |
| 1979 | 20,471,260 | 3,646,500 | 2,610,000 | 1,624,700 | 1,027,900 | 1,827,900 | 6,866,800 | 38,075,060 | 19,591,400 | 57,666,460 |
| 1980 | 20,378,787 | 2,668,300 | 3,297,500 | 1,221,300 | 884,700 | 2,558,400 | 6,668,700 | 37,677,687 | 21,069,900 | 58,747,587 |
| 1981 | 20,177,701 | 2,623,000 | 3,227,000 | 1,542,000 | 1,947,000 | 2,765,000 | 6,906,000 | 39,187,701 | 19,210,000 | 58,397,701 |
| 1982 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |

Source: American Petroleum Institute Data Book

# Estimated Crude Oil Reserves in 20 Leading Nations

| | Reserves (Add 000 bbl.) | | % of Free World Reserves | | % of Total World Reserves | |
|---|---|---|---|---|---|---|
| **Nation** | **1983(a)** | **1982** | **1983** | **1982** | **1983** | **1982** |
| Saudi Arabia (b) | 162,400,000 | 164,600,000 | 27.8% | 28.1% | 24.2% | 24.6% |
| Kuwait (b) | 64,230,000 | 64,480,000 | 11.0 | 11.0 | 9.6 | 9.6 |
| U.S.S.R. | 63,000,000 | 63,000,000 | — | — | 9.4 | 9.4 |
| Iran | 55,308,000 | 57,000,000 | 9.5 | 9.7 | 8.3 | 8.5 |
| Mexico | 48,300,000 | 55,990,000 | 8.3 | 9.7 | 7.2 | 8.5 |
| Abu Dhabi | 41,000,000 | 30,600,000 | 7.0 | 5.2 | 6.1 | 4.6 |
| U.S.A. | 30,510,000 | 29,426,000 | 5.2 | 5.0 | 4.6 | 4.4 |
| Iraq | 29,785,000 | 29,700,000 | 5.1 | 5.1 | 4.4 | 4.4 |
| Libya | 21,500,000 | 22,600,000 | 3.7 | 3.9 | 3.2 | 3.4 |
| Venezuela | 21,500,000 | 20,300,000 | 3.7 | 3.5 | 3.2 | 3.0 |
| China | 19,485,000 | 19,895,000 | — | — | 2.9 | 3.0 |
| Nigeria | 16,750,000 | 16,500,000 | 2.9 | 2.8 | 2.5 | 2.5 |
| United Kingdom | 13,900,000 | 14,800,000 | 2.4 | 2.5 | 2.1 | 2.2 |
| Indonesia | 9,550,000 | 9,800,000 | 1.6 | 1.7 | 1.4 | 1.5 |
| Algeria | 9,440,000 | 8,080,000 | 1.6 | 1.4 | 1.4 | 1.2 |
| Norway | 7,020,000 | 7,620,000 | 1.2 | 1.3 | 1.0 | 1.1 |
| Canada | 6,080,000 | 7,300,000 | 1.2 | 1.2 | 1.0 | 1.1 |
| Qatar | 3,425,000 | 3,434,000 | 0.6 | 0.6 | 0.5 | 0.5 |
| Egypt | 3,325,000 | 2,930,000 | 0.6 | 0.5 | 0.5 | 0.4 |
| Malaysia | 3,325,000 | 2,800,000 | 0.6 | 0.5 | 0.5 | 0.4 |
| **Total Free World** | **585,074,406** | **585,505,150** | **100.0%** | **100.0%** | **87.3%** | **87.3%** |
| **Total World** | **670,189,406** | **670,350,150** | — | — | **100.0%** | **100.0%** |

---

(a) Preliminary. (b) Saudi Arabia and Kuwait share equally the production from the Neutral Zone, located between the two nations, which had reserves of 5,840,000,000 in 1983 and 6,500,000,000 in 1982. These reserves are not included in the above figures.

Source: American Petroleum Institute, Basic Data Book, September, 1983.

# Crude Production in 20 Leading Nations

| | Production (Add 000 bbl.) | | | | % of Free World Production | | % of Total World Production | |
|---|---|---|---|---|---|---|---|---|
| | 1982 | | 1981 | | | | | |
| **Nation** | **Total** | **b/d** | **Total** | **b/d** | **1982** | **1981** | **1982** | **1981** |
| U.S.S.R. | 4,388,760 | 12,024 | 4,303,350 | 11,790 | — | — | 22.6% | 21.1% |
| United States (a) | 3,156,715 | 8,649 | 3,513,125 | 9,625 | 22.4% | 23.1% | 16.3 | 17.2 |
| Saudi Arabia (b) | 2,304,975 | 6,315 | 3,128,780 | 8,572 | 16.3 | 20.6 | 11.9 | 15.4 |
| Mexico | 1,086,970 | 2,978 | 843,880 | 2,312 | 7.7 | 5.6 | 5.6 | 4.1 |
| Iran | 808,110 | 2,214 | 769,420 | 2,108 | 5.7 | 5.1 | 4.2 | 3.8 |
| United Kingdom | 772,705 | 2,117 | 738,760 | 2,024 | 5.5 | 4.9 | 4.0 | 3.6 |
| China | 740,585 | 2,029 | 661,015 | 1,811 | — | 4.4 | 3.8 | 3.2 |
| Venezuela | 690,215 | 1,891 | 585,640 | 1,604 | 4.9 | 3.9 | 3.6 | 2.9 |
| Indonesia | 488,735 | 1,339 | 547,500 | 1,500 | 3.5 | 3.6 | 2.5 | 2.7 |
| Nigeria | 472,675 | 1,295 | 527,425 | 1,445 | 3.3 | 3.5 | 2.4 | 2.6 |
| Canada | 452,965 | 1,241 | 504,065 | 1,381 | 3.2 | 3.3 | 2.3 | 2.5 |
| United Arab Emirates | 443,110 | 1,214 | 469,025 | 1,285 | 3.1 | 3.1 | 2.3 | 2.3 |
| Libya | 422,670 | 1,158 | 415,065 | 1,137 | 3.0 | 2.7 | 2.2 | 2.0 |
| Iraq | 354,780 | 972 | 362,445 | 993 | 2.5 | 2.4 | 1.8 | 1.8 |
| Algeria | 259,150 | 710 | 345,655 | 947 | 1.8 | 2.3 | 1.3 | 1.7 |
| Kuwait | 244,915 | 671 | 293,095 | 803 | 1.7 | 1.9 | 1.3 | 1.4 |
| Egypt | 242,725 | 665 | 218,270 | 598 | 1.7 | 1.4 | 1.3 | 1.1 |
| Norway | 189,070 | 518 | 182,865 | 501 | 1.3 | 1.2 | 1.0 | 0.9 |
| Argentina | 176,660 | 484 | 181,040 | 496 | 1.3 | 1.2 | 0.9 | 0.9 |
| Brunei-Malaysia | 167,900 | 460 | 156,585 | 429 | 1.2 | 1.0 | 0.9 | 0.8 |
| **Total Free World** | | | | | **100.0%** | | **72.8%** | **74.5%** |
| **Total World** | | | | | | | **100.0%** | **100.0%** |

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(a) Includes lease condensate. (b) Excludes Neutral Zone production which was 311,000,000 b/d in 1982.

Source: American Petroleum Institute, Basic Data Book, September, 1983.

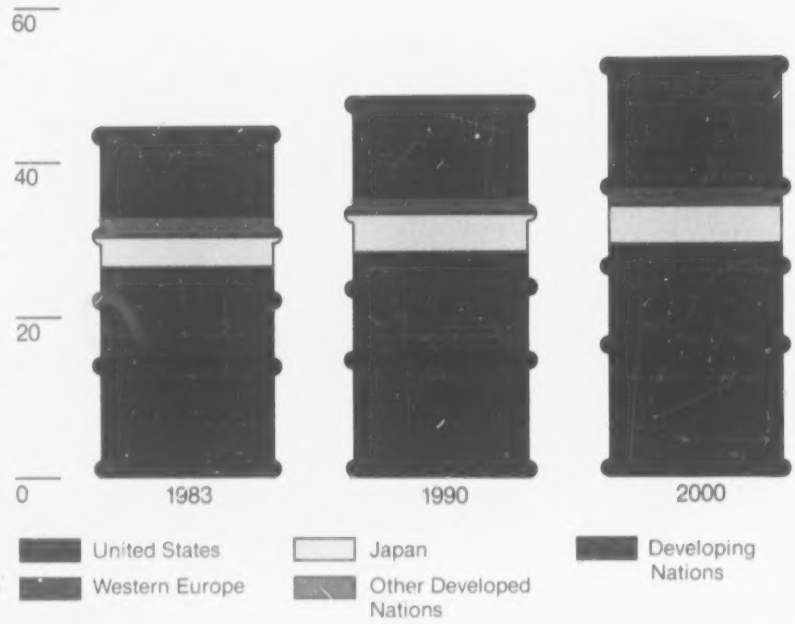
# OPEC to Dominate Global Supplies

**Conoco, Inc., in a projection that looks ahead to the year 2000, believes that world oil demand will rise about 1% per year despite efforts to conserve and limit consumption. Most of the global increase, Conoco says, will come in the developing nations where non-oil alternatives often are not financially viable.**

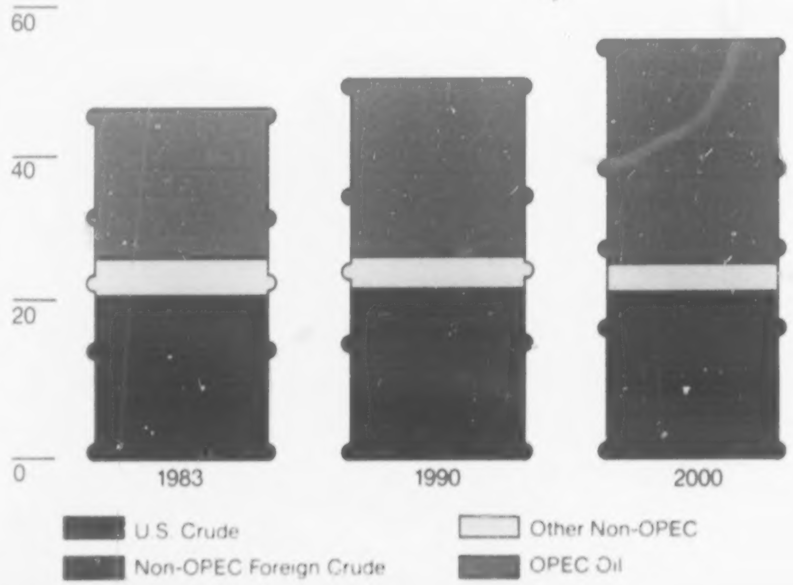
Here's the way Conoco sees it:

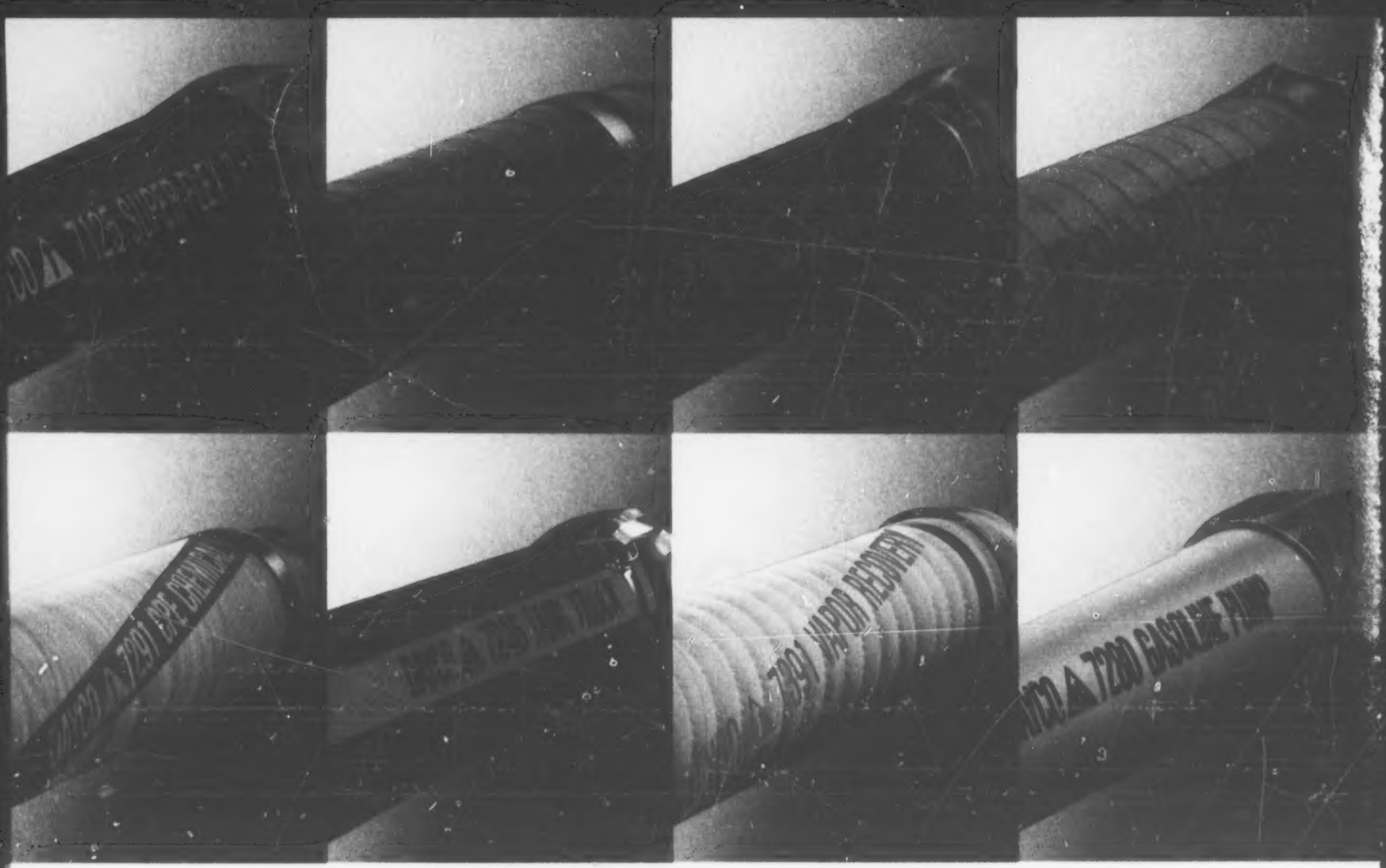
- World oil demand is expected to increase from 44.5-million b/d in 1983 to 48-million b/d in 1990 and 54-million b/d at the century's end. This should provide an expanding market for OPEC oil.
- U.S. oil consumption growth will be particularly slow, averaging only .05% per year. In Western Europe, which is particularly dependent on OPEC, oil use will increase 1% annually during the remainder of this decade but then stabilize.
- In Japan, which also is highly dependent on imported energy, oil consumption growth will lag behind the world average, increasing from less than 4.5-million b/d currently to 5-million b/d in 2000. Japan's incremental energy needs will be met primarily by nuclear power, liquefied natural gas and coal.
- In the developing countries, oil demand will be burgeoning in comparison to the rest of the world, climbing from 11-million b/d at present to 16-million b/d in 2000. These countries will account for two-thirds of the increase in world oil demand, exhibiting an average annual increase of nearly 2.5%. This growth reflects the fact that non-oil energy sources typically require enormous capital investments that many developing countries can ill afford to make given their current debt burdens.
- Non-OPEC oil output will peak in the late 1980s and then decline slowly. OPEC production will grow to almost 29-million b/d in 2000, up from 18-million b/d currently, thereby increasing the world's vulnerability to supply disruptions and resulting price shocks.
- Rising real oil prices should stimulate a resumption of aggressive exploration and development activity in the 1990s. The largest additions to non-OPEC supplies will come from Mexico and the Norwegian sector of the North Sea. Significant increases also will be registered by offshore developments in Africa and Asia. But these increments likely will be too little and occur too late to offset declining production in mature fields, especially in the United States, the United Kingdom and Canada. Overall, non-OPEC crude production is projected to peak in the late 1980s at 22-million b/d, up from 21-million b/d currently. By 2000, non-OPEC crude output will have fallen to slightly more than 21-million b/d.

**World Oil Demand**
(Million Barrels Per Day)



**World Oil Supply**
(Million Barrels Per Day)





# SOURCE OF POWER

***Dayco . . . First Choice for Hose Quality and Integrity. Why settle for second best?***

In the development and manufacture of critical application hose for aircraft refueling, chemical transfer, fuel transfer and curb pump use, Dayco actually sets the standards . . . the toughest in the marketplace.

***100% tested.*** To assure consistent quality and performance, Dayco pump hose is 100% pressure and static continuity tested. Other tests, including coupling pull-off, go well beyond UL standards.

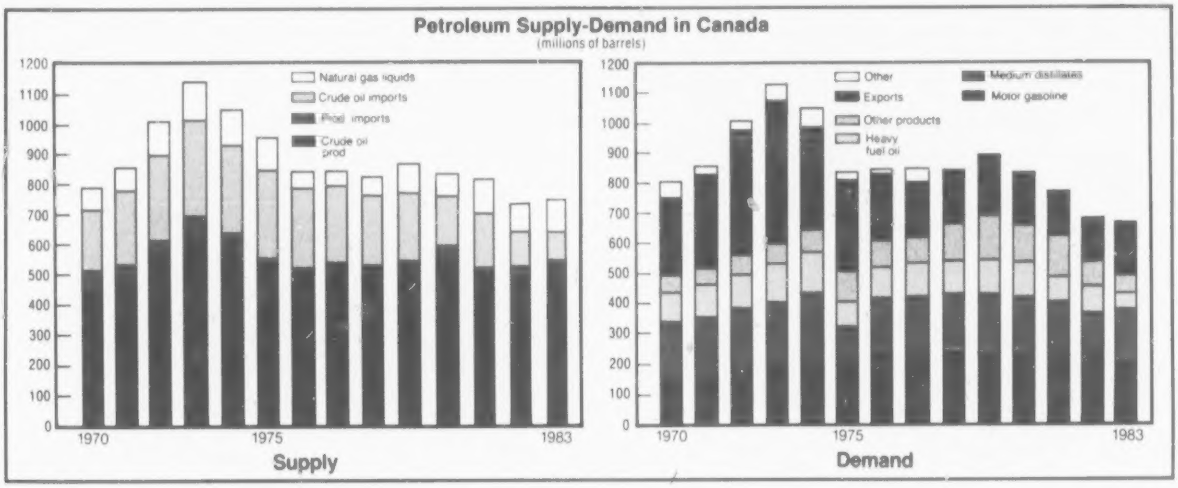
***#1 hose supplier.*** This dedication to excellence has led an overwhelming majority of the nation's pump manufacturers to equip their pumps with Dayco hose.

***New "semi-hardwall" hose.*** Dayco's curb pump line, the industry's broadest, now has something new! Super-Flex II, a unique semi-hardwall hose that combines the toughness and durability of hardwall with the resiliency of softwall. This hose is tough enough to take the abuse and punishment of self-service use. Eliminates meter creep, too. The flexible nylon helix prevents kinking and enables Super-Flex II to bounce back to its original shape even after severe twisting or crushing. You get best-of-both-worlds performance at a very competitive price.

If you use curb pump, tank truck or any critical application hose, why settle for second best? Dayco hose is built and fully tested for longer life, consistently higher performance. For more information, check with your Dayco Distributor, the Source of Power in your area. A most dependable, knowledgeable and competitive source for hose. Or contact: Dayco Corporation, Rubber Products Company, 333 West First Street, Dayton, Ohio 45402. 513/226-5923.

DAYCO ▲ 7157 GST
DAYCO ▲ 7194 MPI
DAYCO ▲ 7289 DRAGON BREATH
DAYCO ▲ 71

DAYCO



**Petroleum Supply-Demand in Canada**
(millions of barrels)

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# Refined Product Sales in 1983

(Cubic Meters) (a)

| | Aviation Gasoline | Motor Gasoline | Aviation Turbine Fuel | Kerosene | Diesel Fuel | Light Fuel Oil | Heavy Fuel Oil | Lubes & Greases |
|---|---|---|---|---|---|---|---|---|
| Newfoundland | 3,955 | 548,943 | 236,936 | 47,737 | 432,666 | 320,071 | 284,450 | 12,246 |
| Prince Edward Island | 2,382 | 168,759 | 5,715 | 13,508 | 49,929 | 105,084 | 16,869 | 2,170 |
| Nova Scotia | 2,363 | 1,103,128 | 139,888 | 70,591 | 621,429 | 761,629 | 909,807 | 26,182 |
| New Brunswick | 2,927 | 921,163 | 50,593 | 45,807 | 319,882 | 476,142 | 932,216 | 19,258 |
| Québec | 26,313 | 6,785,003 | 713,266 | 221,297 | 2,121,825 | 3,337,886 | 3,327,484 | 144,329 |
| Ontario | 41,695 | 11,739,729 | 1,223,674 | 116,573 | 3,567,264 | 2,652,192 | 1,394,632 | 388,538 |
| Manitoba | 22,357 | 1,471,716 | 166,037 | 76,279 | 800,320 | 74,602 | 138,778 | 32,014 |
| Saskatchewan | 10,902 | 1,907,985 | 80,962 | 118,623 | 1,123,799 | 137,062 | 20,932 | 49,025 |
| Alberta | 24,775 | 4,649,184 | 709,824 | 57,182 | 2,565,737 | 75,896 | 37,492 | 114,393 |
| British Columbia | 29,272 | 3,799,409 | 505,167 | 65,830 | 2,129,637 | 453,681 | 841,243 | 93,785 |
| Yukon | 3,790 | 48,673 | 3,973 | 19,157 | 30,131 | 30,663 | 114 | 1,025 |
| Northwest Terr. | 8,748 | 42,877 | 69,414 | 17,866 | 161,734 | 95,621 | 25,265 | 2,886 |
| **Total** | **179,479** | **33,186,570** | **3,905,449** | **870,450** | **13,924,353** | **8,520,529** | **7,929,282** | **885,850** |
| **Total 1982** | **180,239** | **34,279,418*** | **4,059,745** | **1,207,384** | **13,530,304*** | **10,441,563** | **10,505,508*** | **882,390** |

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* = Revised figure

(a) Note: 6.2886 gal. (Imperial) = 1 cubic meter, and 158991 cubic meter = 1 barrel.

Source: Statistics Canada.

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# Gasoline Outlets (a)

| Province | Outlets |
|---|---|
| Newfoundland | 1,190 |
| Prince Edward Island | 297 |
| Nova Scotia | 1,184 |
| New Brunswick | 1,535 (b) |
| Quebec | 7,181 |
| Ontario | 8,202 |
| Manitoba | 1,800 (b) |
| Saskatchewan | * |
| Alberta | 2,518 |
| British Columbia | * |
| Yukon | * |
| Northwest Territories | * |
| **Total** | **23,907** |

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*Not available. (a) licensed. (b) estimated.

Source: Statistics Canada.

# Premium Ratios

| Province | Premium (a) December 1983 | Premium (a) December 1982 |
|---|---|---|
| Alberta, Northwest Territories and Yukon | 4.7% | 5.9% |
| British Columbia | 8.1 | 9.7 |
| Manitoba | 3.0 | 3.5 |
| Maritimes | 7.2 | 8.8 |
| Newfoundland | 4.9 | 6.1 |
| Ontario | 9.9 | 11.4 |
| Quebec | 13.6 | 16.2 |
| Saskatchewan | 2.2 | 2.9 |
| **Total Canada** | **8.8%** | **10.6%** |

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(a) Contains leaded and unleaded premium.

Source: Ethyl Corp., Petroleum Chemicals Div.

# Canadian Oil Companies: How

| Company | TOTAL BRANDED RETAIL OUTLETS | Number of Provinces where marketed | BRANDED SERVICE STATIONS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total true branded service stations | Supplied directly | Supplied through jobbers & commission agents | Lessee/Dealer operated | Salary operated | Commission operated | Full-serve only | Self-serve only | Full-serve/ Self-serve |
| Chevron Canada Ltd. | 307 | 1 | 277 | 196 | 81 | 203 | 0 | 74 | 190 | 81 | 6 |
| Esso Canada (E) | 3,652 | 10 | 3,330 | 2,452 | 1,200 | 3,119 | 72 | 461 | 3,051 | 601 | 0 |
| Federated Co-Operatives Ltd. (xxx) | 724 | 4 | 384 | 384 | 0 | 384 | 0 | 0 | 0 | 116 | 268 |
| Gulf Canada Ltd. | 2,487(A) | 10 | 1,767 | — | (B) | 2,335 | 152 | 0 | 2,022 | 461 | 4 |
| Husky Oil Operations Ltd. (xxx) | 324 | 6 | 253 | 240 | 13 | 253 | 0 | 0 | 222 | 31 | 0 |
| Imperial Oil Ltd. (x) | 3,719 | 10 | 3,719 | 2,469 | 1,250 | 3,216 | 80 | 423 | 3,192 | 527 | — |
| Irving Oil Ltd. (D) | — | — | — | — | — | — | — | — | — | — | — |
| Mohawk Oil Co. Ltd. | 328 | 5 | 328 | 265 | 63 | 196 | 107 | 25 | 206 | 117 | 5 |
| Petrocanada | 2,668 | 10 | 2,668 | 2,257 | 441 | 2,2[illegible]1 | 57 | 320 | 2,074 | 587 | 7 |
| Petrofina Canada Ltd. (x) | 932 | 5 | 932 | 932 | — | 860 | 36 | 36 | 828 | 104 | — |
| Shell Canada Ltd. | 3,433(C) | 10 | 3,433 | 2,274 | 1,159 | 2,826 | 153 | 454 | 2,863 | 570 | 0 |
| Spur Oil Ltd. (Div. of Murphy Oil Co. Ltd.) | 141 | 2 | 141 | 141 | 0 | 97 | 0 | 0 | 128 | 13 | 0 |
| Sunoco (xxx) | 872 | 3 | 872 | 872 | 0 | 662 | 201 | 9 | 662 | 210 | 0 |
| Sunys Petroleum | 67 | 2 | 67 | 67 | 0 | 2 | 5 | 60 | 39 | 28 | 0 |
| Texaco Canada, Ltd. | 2,661 | 10 | 2,661 | 1,475 | 1,186 | 754 | 0 | 558 | 2,103 | 558 | 0 |
| Top Valu Gasmarts | 103 | 2 | 103 | 103 | 0 | 38 | 11 | 52 | 103 | 0 | 0 |
| Turbo Resources Ltd. | 254 | 5 | 243 | 243 | 11 | 63 | 1 | 190 | 246 | 8 | 0 |
| Ultramar Canada (xxx) | 842 | 3 | 842 | 842 | — | 808 | 34 | — | 824 | 10 | 8 |

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(xxx) Most recent information available (year-end 1982). 1984 questionnaire either was not answered or was returned incomplete.

(x) Year-end 1981 information. Questionnaire either was not answered or was returned incomplete.

(A) Includes outlets operated by Servico Ltd. and 24 outlets in Yukon and Northwest Territories.

(B) "Majority" are direct-supplied.

# Brand Names of Gasoline and Motor Oils

**Chevron Canada Ltd.**

| Gasolines | Motor Oils |
|---|---|
| Chevron (r&ur) | Chevron Special |
| Chevron Supreme (up) | Chevron Supreme |
| | Chevron Custom |
| | Chevron Delo 100 |
| | Chevron Delo 300 |
| | Chevron Delo 400 |

**Esso Canada**

| Gasolines | Motor Oils |
|---|---|
| Esso (r) | Esso Plus |
| Esso 2000 (ur) | Esso Extra |
| Esso Extra (up) | Uniflo |

**Federated Co-operatives Ltd. (xxx)**

| Gasolines | Motor Oils |
|---|---|
| Sonic (r&p) | HD 7 |
| Sonic (ur) | D-MO |
| | Sonic Premium |
| | Multrex |

**Gulf Canada Ltd.**

| Gasolines | Motor Oils |
|---|---|
| Gulf (r) | Gulf Premium |
| Gulf (ur&up) | Super Plus |
| | Super Premium II |

**Husky Oil Operations Ltd. (xxx)**

| Gasolines | Motor Oils |
|---|---|
| Husky (r) | Husky Super Duty |
| Husky (ur) | Husky Heavy Duty |
| | Husky HD Special |
| | Husky Stratolube |
| | Strato Plus |

**Imperial Oil Ltd. (x)**

| Gasolines | Motor Oils |
|---|---|
| Esso (r) | Essolube HD |
| Esso 2000 (ur) | Essolube HD X Plus |
| Esso Extra (up) | Essolube HD 3 |
| | Esso Plus |
| | Esso Extra |
| | Uniflo |

**Mohawk Oil Co. Ltd.**

| Gasolines | Motor Oils |
|---|---|
| Mohawk (r) | Mohawk Propane |
| Mohawk (ur&up) | Mohawk Premium |
| | Mohawk Multigrade |
| | Mohawk Heavy Duty Plus |

**Murphy Oil Co. Ltd. (x)**

| Gasolines | Motor Oils |
|---|---|
| Spur (r) | Spur Supreme |
| Spur (ur&up) | Spur HD |
| Gas (r) | Spur Regular |
| Gas (ur&up) | Spur A.T.F. |
| | Spur 2 Stroke |

**Petro-Canada**

| Gasolines | Motor Oils |
|---|---|
| Petro-Canada (r) | Heavy Duty |
| Petro-Canada (ur&up) | Universal |
| | Multi Plus |
| | Multi |

**Petrofina Canada Ltd. (x)**

| Gasolines | Motor Oils |
|---|---|
| Fina Regular (r) | Regular M.O. Single Grade |
| Fina Lead-Free (ur) | Dieseltonic H.D. 30 |
| Fina Super 100 Lead-Free (up) | Universal MG 15W40 |
| | Heavy Duty 10W20-20W 30, 40 |
| | Multi 10W30 |
| | Multi-Plus 5W30-10W40 |

**Shell Canada Ltd.**

| Gasolines | Motor Oils |
|---|---|
| Shell (r) | Shell X-100 |
| Shell Ultra (up) | Shell Super Plus |
| Shell Super Non-Leaded (up) | Shell Super Plus Arctic |

**Spur Oil Ltd.**

| Gasolines | Motor Oils |
|---|---|
| Spur (r) | Castrol Products |
| Spur (ur&up) | Spur Supreme |
| | Spur Multi-grade |

**Sunoco Inc. (xxx)**

| Gasolines | Motor Oils |
|---|---|
| Sunoco 200 (r) | Dynalube, Pronto |
| Sunoco Leaded Blend (p) | Dieselube, Sunfleet |
| Sunoco Reg. Unleaded (ur) | Special |
| Sunoco Premium Unleaded (up) | Cam 2 |
| Sunoco [illegible] Unleaded (other) | |
| Pronto (r) | |
| Pronto (ur&up) | |

**Sunys Petroleum Inc.**

| Gasolines | Motor Oils |
|---|---|
| Sunys (r) | |
| Sunys (ur&up) | |
| Cansave (r) | |
| Cansave (ur&up) | |
| Econobec (r) (ur&up) | |

**Texaco Canada, Ltd.**

| Gasoline | Motor Oils |
|---|---|
| Fire Chief (r) | Havoline |
| Lead-Free Texaco (up) | URSA Havoline Supreme |
| SkyChief Lead-Free (usp) | URSA Super Plus |
| | URSA Superflow |

**Top Valu Gasmarts**

| Gasoline | Motor Oils |
|---|---|
| Top Value (r) (p) (sp) (other) | |
| Top Value (ur) (up) (usp) (other) | |

**Turbo Resources Ltd.**

| Gasoline | Motor Oils |
|---|---|
| Turbo (u) | Turbo |
| Turbo No-Lead (ur&up) | Florite |
| Turbo (up) | Red Ram |

**Ultramar Canada Inc.**

| Gasoline | Motor Oils |
|---|---|
| Ultramar (r&p) | Ultralube |
| Ultramar (ur&up) | Ultralube Monograde HD |
| XL (r, ur&up) | Ultralube Super Multigrade |
| Arrow (r, ur&up) | |

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(xxx) Most recent data available—1983

(x) 1982 data

**KEY**

**Gasoline**

**(r) Regular**

**(p) Premium**

**(sp) Super Premium**

**(u) Unleaded**

**Motor Oils . . . Brand names are listed lowest price grade first.**

# Distribution Is Organized

| BRANDED JOBBERS | | | | COMMISSION AGENTS | | | | BULK PLANTS | | | | TERMINALS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SELLING . . . | | | | SELLING . . . | | | | COMPANY OPERATED | | | | COMPANY OPERATED | | |
| Total | Gasoline only | Fuel Oil only | Gasoline and fuel oil | Total | Gasoline only | Fuel oil only | Gasoline and fuel oil | Total | Salary operated | Commission operated | Jobber operated | Total | Salary operated | Commission operated | Jobber operated |
| 3 | 0 | 0 | 3 | 41 | 0 | 0 | 41 | 44 | 1 | 41 | 2 | 2 | 2 | 0 | 0 |
| 9 | 0 | 0 | 9 | 614 | 0 | 614 | 0 | 639 | 0 | 632 | 7 | 54 | 47 | 7 | 0 |
| — | — | — | — | — | — | — | — | 340 | 340 | 0 | — | — | — | — | — |
| 221 | 0 | 0 | 221 | 279 | 0 | 0 | 279 | 584 | 84 | 279 | 221 | 55 | 45 | 10 | 0 |
| 32 | 0 | 0 | 32 | — | — | — | — | — | — | — | — | 1 | 1 | 0 | — |
| 0 | — | — | — | 692 | — | 2 | 690 | 665 | — | 665 | 63 | 56 | 7 | — | |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2 | 0 | 0 | 2 | 25 | 25 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 23 | 6 | 17 | 0 | 240 | 0 | 0 | 240 | 198 | 22 | 169 | 7 | 24 | 24 | 0 | 0 |
| — | — | — | — | 123 | — | — | 123 | 23 | 22 | 1 | — | 12 | 12 | — | — |
| 190 | 0 | 24 | 166 | 695 | 453 | 0 | 242 | 268 | 39 | 229 | 9 | 21 | 21 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 3 | 3 | 0 | 0 |
| 0 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 20 | 20 | — | 7 | 7 | 0 | 0 | |
| 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | — | — | — | 345 | 166 | 38 | 141 | 258 | 57 | 201 | — | 29 | 29 | 0 | — |
| 38 | 38 | 0 | 0 | 54 | 54 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | — | — | — | 191 | 33 | 0 | 158 | 18 | 0 | 17 | 1 | 1 | 1 | 0 | 0 |
| — | — | — | — | 67 | — | — | 67 | 84 | 84 | — | — | 47 | 47 | — | — |

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(C) Includes Beaver outlets and 4 outlets in Northwest Territories.
(D) Refuses to disclose any operating details.
(E) Division of Imperial Oil Ltd.

# Branded Retail Outlets in Canada

| Company | Total | No. of Provinces | Newfoundland | Nova Scotia | New Brunswick | Quebec | Ontario | Prince Edward Island | Manitoba | Saskatchewan | Alberta | British Columbia |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chevron Canada Ltd. | 307 | 1 | — | — | — | — | — | — | — | — | — | 307 |
| Esso Canada (C) | 3.652 | 10 | 189 | 189 | 178 | 649 | 993 | 38 | 242 | 370 | 363 | 441 |
| Federated Co-Operatives Ltd. (xxx) | 724 | 4 | — | — | — | — | — | — | 132 | 427 | 91 | 24 |
| Gulf Canada Ltd. | 2.487(A) | 10 | 57 | 72 | 42 | 510 | 503 | 8 | 227 | 344 | 404 | 296 |
| Husky Oil Operations Ltd. (xxx) | 324 | 6 | — | — | — | — | 61 | — | 38 | 31 | 102 | 89 |
| Imperial Oil Ltd. (x) | 3.719 | 10 | 192 | 203 | 175 | 759 | 867 | 45 | 267 | 357 | 389 | 465 |
| Irving Oil Ltd. (D) | — | — | — | — | — | — | — | — | — | — | — | — |
| Mohawk Oil Co. Ltd. | 328 | 5 | — | — | — | — | — | 3 | 23 | 31 | 187 | 84 |
| Murphy Oil Co. Ltd. (x) | 240 | 2 | — | — | — | 150 | 90 | — | — | — | — | — |
| Petro Canada | 2.668 | 10 | 8 | 141 | 94 | 938 | 1.121 | 13 | 36 | 48 | 106 | 163 |
| Petrofina Canada Ltd. (x) | 932 | 5 | — | 129 | 87 | 403 | 302 | 11 | — | — | — | — |
| Shell Canada Ltd. | 3.433(B) | 10 | — | 114 | 129 | 830 | 1.161 | 31 | 302 | 216 | 303 | 343 |
| Spur Oil Ltd. (Div. of Murphy Oil Co. Ltd.) | 141 | 2 | — | — | — | 136 | 5 | — | — | — | — | — |
| Sunoco (xxx) | 872 | 3 | — | — | — | 330 | 540 | — | — | — | 2 | — |
| Sunys Petroleum Inc. | 67 | 2 | — | — | — | — | — | — | — | — | — | — |
| Texaco Canada, Ltd. | 2.661 | 10 | 40 | 134 | 144 | 760 | 891 | 27 | 115 | 146 | 213 | 191 |
| Top Valu Gasmarts | 103 | 2 | — | — | — | 20 | 83 | — | — | — | — | — |
| Turbo Resources Ltd. | 254 | 5 | — | — | — | — | 53 | — | 11 | 48 | 116 | 26 |
| Ultramar Canada (x) | 842 | 3 | 185 | — | — | 420 | 237 | — | — | — | — | — |

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(xxx) Most recent information available (year end 1982). 1984 questionnaire either was not answered or was returned incomplete.
(x) Year-end 1981 information. 1983 and 1984 questionnaire either was not answered or was returned incomplete.
(A) Includes 24 outlets in Yukon and Northwest Territories.
(B) Includes 4 outlets in Northwest Territories.
(C) Division of Imperial Oil Ltd.
(D) Refuses to disclose any operating details.

# Canadian Statistics

## Motor Vehicle Registrations 1982

| Province | Passenger Cars | Trucks | Buses | Motorcycle | Others | Total Vehicles | Trailers |
|---|---|---|---|---|---|---|---|
| Newfoundland | 129,387 | 56,440 | * | 4,687 | * | 190,514 | 18,353 |
| Prince Edward Island | 48,177 | 17,397 | 418 | 2,011 | 217 | 68,220 | 6,852 |
| Nova Scotia | 363,883 | 147,691 | 1,529 | 21,150 | 1,119 | 535,372 | 48,524 |
| New Brunswick | 249,819 | 99,523 | 696 | 10,793 | 11,965 | 372,796 | 55,464 |
| Québec | 2,376,745 | 294,706 | 14,869 | 106,813 | 33,017 | 2,826,150 | 328,041 |
| Ontario | 3,842,743 | 1,067,535 | 23,827 | 119,642 | 6,448 | 5,060,195 | 733,956 |
| Manitoba | 464,916 | 187,083 | 137 | 17,461 | 732 | 670,329 | 95,714 |
| Saskatchewan | 375,165 | 294,904 | 4,485 | 12,269 | 651 | 687,474 | 102,316 |
| Alberta | 1,259,791 | 460,217 | 7,845 | 59,898 | * | 1,787,751 | 247,187 |
| British Columbia | 1,406,370 | 591,925 | * | 74,938 | 1,297 | 2,074,530 | 256,592 |
| Yukon | 6,879 | 11,358 | 166 | 709 | * | 19,112 | 3,696 |
| Northwest Terr. | 6,480 | 10,562 | 93 | 1,082 | 57 | 18,274 | 2,787 |
| **Total** | **10,530,355** | **3,239,341** | **54,065** | **431,453** | **55,503** | **14,310,717** | **1,899,482** |

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*Figures not available
Source: Statistics Canada

## New Motor Vehicle Sales

| Year | Total | Passenger cars | Commercial vehicles |
|---|---|---|---|
| 1983 | 1,081,088 | 843,318 | 237,770 |
| 1982 | 920,902 | 713,481 | 207,421 |
| 1981 | 1,190,882 | 904,195 | 286,687 |

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Source: Statistics Canada

## Automobiles Per Household 1983

| | Households (add 000) | | | |
|---|---|---|---|---|
| Province | 1 auto | 2 autos | 3 or more | without |
| Newfoundland | 81 | 26 | 5 | 40 |
| Prince Edward Island | 21 | 9 | — | 6 |
| Nova Scotia | 142 | 54 | 14 | 59 |
| New Brunswick | 111 | 47 | 11 | 40 |
| Quebec | 1,264 | 350 | 68 | 559 |
| Ontario | 1,554 | 747 | 160 | 617 |
| Manitoba | 184 | 70 | 21 | 85 |
| Saskatchewan | 165 | 83 | 32 | 55 |
| Alberta | 344 | 222 | 84 | 122 |
| British Columbia | 465 | 267 | 86 | 187 |
| **Total** | **4,332** | **1,876** | **482** | **1,770** |

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Note: Data from a sample survey only
— amount too small
Source: Statistics Canada

## Factory Sales of Auto Batteries

| | 1983 | Dollar Value* | 1982 | Dollar Value* |
|---|---|---|---|---|
| Orig. equip. | confidential | — | confidential | — |
| Replacement | 2,695,969 | 94,487,362 | 3,023,971 | $109,013,649 |
| Heavy-duty transport, motor coach, bus, diesel starting batteries, for replacement | 405,742 | 19,476,813 | 272,436 | 17,014,455 |

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*Canadian
Source: Statistics Canada

## Factory Tires

| | 1982 | $000 | 1981 | $000 |
|---|---|---|---|---|
| Passenger cars belted bias | 3,974,605 | 112,088 | 3,164,682 | 89,745 |
| Light trucks, NES | 1,180,053 | 64,368 | 1,434,965 | 73,056 |
| Buses & heavy trucks | 711,543 | 99,284 | 823,115 | 114,998 |
| Farm vehicles and off-highway, NES | 660,651 | 103,618 | 728,364 | 123,167 |

---

N.E.S.: Not elsewhere specified
Source: Statistics Canada

## Drivers Licenses 1982

| Province | Drivers |
|---|---|
| Newfoundland | 270,000 |
| Prince Edward Island | 23,174 |
| Nova Scotia | 493,081 |
| New Brunswick | 380,336 |
| Quebec | 3,470,460 |
| Ontario | 5,370,892 |
| Manitoba | 579,813 |
| Saskatchewan | 560,861 |
| Alberta | 1,681,582 |
| British Columbia | 2,215,320 |
| Yukon | 16,946 |
| Northwest Territories | 18,611 |
| **Total** | **15,081,076** |

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Source: Statistics Canada

## Heating Fuels In 1983

| | Households (add 000) | | | | | | |
|---|---|---|---|---|---|---|---|
| | Oil | Piped Gas | Bottled Gas | Electricity | Other | Wood | Total Households |
| Newfoundland | 68 | (a) | (a) | 54 | (a) | 29 | 151 |
| Prince Edward Island | 31 | (a) | (a) | (a) | (a) | 6 | 38 |
| Nova Scotia | 198 | (a) | 4 | 27 | 5 | 36 | 270 |
| New Brunswick | 111 | (a) | (a) | 54 | (a) | 43 | 209 |
| Quebec | 906 | 191 | (a) | 1,061 | (a) | 76 | 2,241 |
| Ontario | 780 | 1,712 | 16 | 484 | * | 81 | 3,078 |
| Manitoba | 35 | 217 | (a) | 92 | (a) | 12 | 361 |
| Saskatchewan | 53 | 255 | 8 | 12 | (a) | 6 | 335 |
| Alberta | 11 | 742 | 11 | — | (a) | (a) | 773 |
| British Columbia | 197 | 565 | 8 | 184 | (a) | 50 | 1,005 |
| **Total** | **2,390** | **3,681** | **55** | **1,974** | **19** | **341** | **8,460** |

---

Note: Data from a sample survey only
(a) Amount too small
*Not Applicable
Other: includes Coal and Coke
Source: Statistics Canada

Expressway wants you
to spend a few minutes
with our Q and A
...before you spend
thousands on their POS.

# Station POS questions?

In a new field like service station POS the questions often outnumber the available answers. And the developmental pace is so fast that it seems decisions must be made before all the facts can possibly be gathered.

## Incremental Sales

**Q** *Can any station POS system actually deliver more sales?*

**A** Yes. We know that people buy gas where it's most convenient. Because automated terminals make it easier, they bring in more customers. Customers that want fast service without the inconvenience of carrying cash.

**Q** *Beyond added convenience, what guarantee does a station owner have that his investment in new equipment will pay off in added sales?*

**A** It's simple. Each payment vehicle—whether debit card, Visa/MasterCard or private label credit—carries with it a loyal customer base. By accepting these cards, automated POS opens your business to an affluent new clientele—ready to buy and spend more at your stations.

**Q** *Sounds reasonable doesn't it? Added convenience and a larger customer base bring more sales. But, then can't all POS systems bring the same sales increment?*

**A** No way! Here's where Expressway separates itself from its big-name competition. With greater convenience: we've situated Expressway on top of the pump where it's most accessible. No trips back and forth from an island or kiosk terminal. No "double-dipping" to get a receipt. No confusion and no delays. With wider card acceptance: Expressway is easily programmed to accept the card programs you want. Expressway has the experience to link your stations to any network.

**Q** *Given that the right POS system can attract new customers, what is it about a system that will keep your customers coming back?*

**A** The key to repeat purchases is user-friendliness. Customers want a system that they are comfortable with. One that looks and acts like the ATM they are so used to. Expressway is that system. Features such as instant authorization and receipt availability, ATM-like P-I-N entry, and visual displays readable in even bright sunlight will keep your customers coming back.

## Compatibility and Ease of Installation

**Q** *Doesn't the installation of any system require extensive construction in the station and replacement of most existing equipment?*

**A** No. With Expressway, little station modification is required. In many cases, the new wiring can even be pulled through existing station conduit. We also have the expertise to retro-fit to all existing dispensers, consoles and cash registers.

**Q** *What about the sizeable investment you may have already made in pumps, cash registers and other hardware?*

**A** Unlike most of our competitors, Expressway's only business is POS terminals. Not expensive computer packages or new gas dispensers. Our success can be found in our flexibility. Expressway operates on any gas pump—mechanical or electronic. And our software emphasis lets us connect our system without hard-wiring to pumps. That means existing equipment warranties are maintained.

## Total Program Support

**Q** *POS systems today are very complicated—requiring interface with financial institutions and communications networks. How can the station owner gain the needed expertise?*

# Expressway™ has the answers.

Expressway is the best POS system available because we anticipated the hard questions. And came up with the right answers. Now, to help you make the right POS decision for your stations, we've compiled the Expressway Q&A.

**A** We expect the service station owner to know his business: gasoline retailing. We know ours: POS systems. When you buy an Expressway system you're buying more than a hardware package. Your buying total POS support.

**Q** *What exactly does the Expressway support package include?*

**A** Everything you'll need to interface with multiple banks and communication networks. To authorize sales, to charge customer's accounts, to reconcile charges and receive settlements. Our broad experience provides credibility needed to be the vital link with your bank. Or we can also act as "matchmaker"—securing a bank commitment for your program.

**Q** *How much does all this support cost the station owner?*

**A** Not a cent. It's all part of the Expressway package. Knowing that our product was not complete without this interface capability, we hired the experts. We built an experience base that our customers can cash in on. With Expressway, there are no outside consultants to hire. We are there to provide total service.

**Q** *What about marketing? For those who are just initiating a credit or debit POS program, how do they go about attracting new customers?*

**A** Expressway can help. With market analyses to locate new customers and select pilot sites. With proven consumer activation programs to bring you new business.

## Management Reporting and Cost Control

**Q** *With the cost of doing business steadily increasing, what real savings can be expected from POS?*

**A** We can reduce labor costs. By cutting back on extra attendant at peak periods. Or providing an unattended capability at off-hours. Also by pre-authorizing sales, Expressway eliminates the chargebacks you might anticipate from a card program. And other risks like drive-offs and fraud are substantially reduced.

**Q** *Is there anything that POS can do to increase service station efficiency?*

**A** Quite a lot. Expressway can provide you with what you need—automatically. From shift closes and reconciliations for every cash and charge sale to accurate, timely inventory summaries by product and price. Besides, think how the increase in throughput will cut unit cost.

*More questions? Contact Gregory Kane, VP-Marketing, Expressway Systems Corporation, 575 Madison Avenue, Suite 1006, New York, NY 10022, telephone (212) 605-0360.*

Really, there is only one question. What system can deliver the most sales, best support, easiest installation, tightest cost controls—all at a highly competitive price? The answer is Expressway.

EXPRESSWAY

EXPRESSWAY™

WHERE GASOLINE RETAILING IS GOING.

# LP-Gas Sales Drop 6.5% in 1982

**In 1982, sales of liquefied petroleum gases and ethane totaled 19.4-billion gal. (462.9 million bbl.), compared with the revised 1981 total of 20.8-billion gal. (495.3-million bbl.), a decrease of 6.5%.**

The slump reflected continued conservation efforts and sluggish industrial activity. Sales fell off in all categories except internal combustion engine fuel use. And, 1981 totals also were revised upward, which didn't help matters.

## LPG Sales Trend

### Major Domestic Markets
### (Add 000,000 gal.)

| | Total U.S. sales | | Residential-commercial | | Chemical | | Internal combustion | | Industrial | | All other uses | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Vol. | % Change | Vol. | % Change | Vol. | % Change | Vol. | % Change | Vol. | % Change | Vol. | % Change |
| 1982 | 19,441 | -6.5% | 4,047 | -4.3% | 9,679 | -7.3% | 644 | 16.2% | 2,095 | 0.6% | 2,976 | -15.2% |
| 1981 (a) | 20,803 | 8.3 | 4,217 | -11.5 | 10,438 | 27.9 | 554 | 24.8 | 2,083 | -1.0 | 3,511 | -5.8 |
| 1980 | 18,604 | -3.1 | 4,373 | -8.2 | 7,808 | -4.3 | 508 | 14.4 | 2,217 | 5.3 | 3,698 | -1.0 |
| 1979 | 19,202 | 27.8 | 4,764 | -31.5 | 8,160 | 129.0 | 444 | -55.3 | 2,105 | 57.1 | 3,728 | 71.6 |
| 1978 | 15,023 | -3.1 | 6,954 | -3.0 | 3,563 | -0.4 | 993 | -13.3 | 1,340 | 28.4 | 2,172 | -15.6 |
| 1977 | 15,508 | -3.2 | 7,169 | -2.0 | 3,578 | -12.4 | 1,145 | -2.1 | 1,044 | — | 2,573 | 7.5 |
| 1976 | 16,013 | 5.3 | 7,313 | 4.2 | 4,085 | -2.1 | 1,170 | — | 1,052 | -2.8 | 2,394 | 35.8 |
| 1975 | 15,200 | -6.8 | 7,020 | -2.9 | 4,172 | -23.0 | 1,162 | -11.3 | 1,082 | 1.2 | 1,763 | 38.3 |
| 1974 | 16,306 | -5.0 | 7,231 | -7.8 | 5,422 | -9.0 | 1,310 | -7.0 | 1,069 | 2.4 | 1,275 | 46.2 |
| 1973 | 17,812 | -1.1 | 7,846 | -5.0 | 5,960 | 1.0 | 1,409 | -4.7 | 1,095 | -2.3 | 872 | 41.1 |
| 1972 | 17,373 | 12.1 | 8,253 | 7.6 | 5,898 | 15.1 | 1,479 | 11.7 | 1,124 | 23.7 | 618 | 30.7 |
| 1971 | 15,498 | 1.5 | 7,668 | 1.3 | 5,124 | 2.4 | 1,324 | — | 909 | 1.3 | 473 | 1.3 |
| 1970 | 15,271 | 26.6 | 7,569 | 41.6 | 5,003 | 24.8 | 1,336 | 11.9 | 897 | 32.1 | 467 | 125.6 |
| 1965 | 11,434 | 33.7 | 5,346 | 26.5 | 4,008 | 54.6 | 1,194 | 33.0 | 679 | 13.9 | 207 | -23.0 |
| 1960 | 8,579 | 40.1 | 4,225 | 50.8 | 2,593 | 36.5 | 898 | 37.7 | 596 | 13.7 | 269 | 9.3 |
| 1955 | 6,123 | 75.8 | 2,801 | 38.5 | 1,899 | 122.6 | 652 | 401.5 | 524 | 241.6 | 246 | -7.7 |
| 1950 | 3,433 | — | 2,022 | — | 853 | — | 130 | — | 217 | — | 260 | — |

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(a) 1981 totals were revised in June 1983.

Source: Sales of LPG and Ethane in 1982, Petroleum Supply Annual, Energy Information Administration, June 1983.

**BRITE IDEAS**

**Our signs sell gas and much more:**

Self Serv
Regular/Gal
128.9
Lead Free/Gal
132.9
Diesel/Gal
123.9

- Internally illuminated
- U.L. listed
- Lexan faces
- 10" or 16" high, easy-to-change numbers
- Changeable product plates
- 3 to 4 foot widths
- 1, 2 or 3 product displays, *or fitted to your specifications*

**CUSTOM SIGNS**

Looking for more "brite ideas"? Contact us today for customizing logos and brand names into your station or convenience store signs.

**CALL TOLL FREE**

[redacted]

**COMMUNA-K inc.**

1964 Wisconsin Ave. Grafton, WI 53024

**An Investment Future**

You can now become part of an exciting industry doing over $12 billion in retail sales. If you want a business of your own, have a net worth of at least $500,000 and a high degree of liquidity . . . you owe it to yourself to investigate the regional licensing opportunities of Convenient Food Mart stores.

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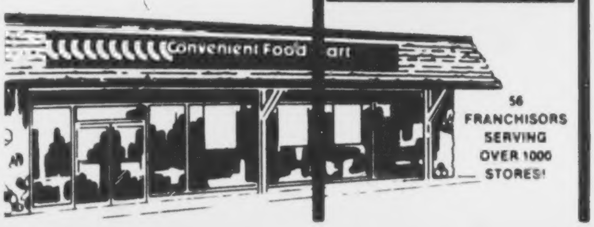
Suite 850N
Rosemont, Illinois 60018
Phone: 312-692-9150

Convenient Food Mart

Open 7 days 'til midnight



56 FRANCHISORS SERVING OVER 1000 STORES!

# Sales of Liquid Petroleum Gases, by Use

(Add 000 gal.)

| District and State | Residential and Commercial | | Internal Combustion Fuel | | Chemical Industrial | | Gas Utility | | Other | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 | 1982 | 1981 |
| **PAD District 1** | | | | | | | | | | | | |
| New England States | | | | | | | | | | | | |
| Connecticut | 28,493 | 29,214 | 1,674 | 1,641 | 14,826 | 12,089 | 3,030 | 6,205 | 2,344 | 2,797 | 50,367 | 51,946 |
| Maine | 19,948 | 17,049 | 900 | W | 8,402 | 8,425 | W | W | W | 1,205 | 29,744 | 27,778 |
| Massachusetts | 35,232 | 35,226 | 3,528 | 3,625 | 6,021 | 8,830 | 30,016 | 50,113 | 1,834 | 2,239 | 76,631 | 100,033 |
| New Hampshire | 29,487 | 28,980 | 644 | 631 | 5,756 | 5,694 | 10,681 | 11,779 | 250 | 203 | 46,818 | 47,287 |
| Rhode Island | 5,932 | 5,991 | W | W | 2,209 | 2,488 | W | W | 2,038 | W | 11,645 | 10,796 |
| Vermont | 20,570 | 18,816 | 433 | W | 2,635 | W | 6,405 | W | 567 | 362 | 30,610 | 24,324 |
| Central Atlantic States | | | | | | | | | | | | |
| Delaware | 18,631 | 22,400 | 693 | W | 6,362 | 6,160 | 95 | W | 5,637 | 3,436 | 31,418 | 33,964 |
| Maryland and District of Columbia | 39,269 | 45,119 | 3,584 | W | 18,544 | W | 3,659 | 6,273 | 7,556 | 8,060 | 72,612 | 78,531 |
| New Jersey | 41,580 | 46,731 | 12,007 | 12,630 | 160,871 | 172,944 | 4,912 | 7,078 | 2,903 | 3,384 | 222,273 | 242,767 |
| New York | 123,589 | 131,813 | 10,189 | 9,977 | 26,321 | 45,940 | 3,853 | 4,486 | 9,316 | 10,570 | 173,268 | 202,786 |
| Pennsylvania | 87,817 | 90,290 | 15,685 | 14,672 | 136,527 | 165,668 | 285 | 11,307 | 14,375 | 14,983 | 254,689 | 296,920 |
| Lower Atlantic States | | | | | | | | | | | | |
| Florida | 190,313 | 233,281 | 25,899 | 19,664 | 76,440 | 101,597 | 7,561 | 9,968 | 15,459 | 21,422 | 315,672 | 385,932 |
| Georgia | 137,303 | 163,710 | 14,725 | 13,264 | 19,088 | 20,838 | 4,797 | 5,944 | 50,257 | 61,178 | 226,170 | 264,934 |
| North Carolina | 124,569 | 137,573 | 10,464 | 8,726 | 22,590 | 30,663 | 3,180 | 5,956 | 85,819 | 110,022 | 246,622 | 292,940 |
| South Carolina | 64,461 | 77,126 | W | 4,371 | 7,485 | 8,818 | W | 1,869 | 14,734 | 17,694 | 92,587 | 109,878 |
| Virginia | 64,694 | 68,732 | ~~5,642~~ | 6,184 | 15,888 | 14,789 | 795 | 2,742 | 18,067 | 22,090 | 105,086 | 114,537 |
| West Virginia | 12,617 | 19,470 | 1,438 | 2,023 | 80,437 | 104,019 | W | W | W | W | 95,321 | 126,339 |
| **Total** | **1,044,505** | **1,171,521** | **114,230** | **104,915** | **610,402** | **727,044** | **80,212** | **126,999** | **232,184** | **281,213** | **2,081,533** | **2,411,692** |
| **PAD District 2** | | | | | | | | | | | | |
| Illinois | 197,257 | 200,107 | 34,915 | 22,858 | 334,574 | 648,550 | 2,700 | 26,450 | 385,155 | 429,905 | 954,601 | 1,327,870 |
| Indiana | 141,947 | 162,859 | W | W | 42,154 | 51,774 | W | W | 44,757 | 55,297 | 242,551 | 281,985 |
| Iowa | 186,195 | 177,950 | 7,485 | W | 76,400 | 69,402 | 26,375 | W | 128,166 | 130,347 | 424,621 | 384,621 |
| Kansas | 79,480 | 80,603 | 17,318 | 14,972 | 253,224 | 122,194 | 11,043 | 4,993 | 63,356 | 66,489 | 424,421 | 289,251 |
| Kentucky | 75,188 | 92,446 | 20,080 | W | 151,419 | 203,842 | 180 | W | 5,792 | 6,116 | 252,659 | 308,135 |
| Michigan | 161,887 | 146,298 | 19,619 | W | 35,458 | 22,100 | 7,167 | W | 28,337 | 27,981 | 252,468 | 216,690 |
| Minnesota | 139,132 | 131,737 | 9,058 | 9,348 | 31,909 | 21,993 | 12,097 | 1,324 | 73,938 | 67,227 | 266,134 | 231,629 |
| Missouri | 238,363 | 229,979 | 8,550 | W | 11,946 | 15,697 | 36,122 | W | 22,794 | 31,818 | 317,775 | 287,403 |
| Nebraska | 71,001 | 64,805 | 12,576 | 13,124 | W | 4,851 | W | — | 77,788 | 73,676 | 170,100 | 156,456 |
| North Dakota | 18,555 | 32,268 | 11,760 | 7,535 | 1,245 | W | 3,483 | W | 16,323 | 10,116 | 51,366 | 56,441 |
| Ohio | 130,446 | 137,388 | 25,022 | W | 279,106 | 256,944 | 290 | W | 1,014,260 | 1,125,896 | 1,449,124 | 1,543,384 |
| Oklahoma | 107,576 | 93,276 | 30,362 | 20,798 | 93,160 | 66,675 | 715 | 56,933 | 54,971 | 40,172 | 286,784 | 277,854 |
| South Dakota | 46,792 | 45,803 | 3,937 | 3,410 | W | W | W | W | 26,075 | 18,942 | 79,255 | 69,192 |
| Tennessee | 53,643 | 37,922 | 11,140 | 5,647 | 9,350 | 8,465 | 497 | 727 | 7,035 | 6,153 | 81,665 | 58,914 |
| Wisconsin | 138,860 | 133,640 | W | 11,972 | 19,213 | 10,078 | W | 183 | 37,185 | 35,900 | 210,083 | 191,773 |
| **Total** | **1,786,322** | **1,767,081** | **234,688** | **182,149** | **1,348,681** | **1,506,580** | **107,984** | **97,753** | **1,985,932** | **2,126,035** | **5,463,607** | **5,681,588** |
| **PAD District 3** | | | | | | | | | | | | |
| Alabama | 113,286 | 132,590 | 11,903 | 8,257 | W | W | W | W | 23,481 | 25,820 | 157,161 | 177,840 |
| Arkansas | 81,696 | 85,923 | 23,665 | 13,587 | W | W | W | W | 31,472 | 35,072 | 145,002 | 146,331 |
| Louisiana | 42,263 | 56,627 | 18,127 | W | 3,057,722 | 2,792,738 | W | W | W | W | 3,142,468 | 2,869,293 |
| Mississippi | 96,299 | 103,297 | 18,785 | W | 13,093 | 25,195 | 408 | W | 28,585 | 30,742 | 159,170 | 176,603 |
| New Mexico | 53,248 | 40,534 | 6,460 | 7,831 | 20,284 | 54,560 | W | W | W | W | 96,625 | 121,314 |
| Texas | 233,684 | 308,587 | 86,839 | 85,939 | 6,404,755 | 7,016,694 | 11,922 | 125,127 | 200,700 | 409,065 | 6,937,900 | 7,945,412 |
| **Total** | **622,475** | **727,558** | **165,779** | **140,380** | **9,510,743** | **9,909,836** | **31,056** | **138,904** | **308,272** | **520,115** | **10,638,326** | **11,436,793** |
| **PAD District 4** | | | | | | | | | | | | |
| Colorado | 111,913 | 101,950 | 5,305 | 6,511 | 10,587 | 13,099 | 21,660 | 9,023 | 14,598 | 13,885 | 164,063 | 144,468 |
| Idaho | 16,061 | 14,414 | W | W | 4,994 | 3,952 | W | W | 5,370 | 4,929 | 36,597 | 34,173 |
| Montana | 36,369 | 24,878 | W | 3,278 | 4,886 | 1,880 | W | 5,847 | 6,243 | 4,047 | 51,357 | 39,930 |
| Utah | 21,235 | 18,972 | 6,197 | W | 3,651 | 10,835 | 15,968 | W | 7,045 | 16,159 | 54,096 | 60,104 |
| Wyoming | 40,616 | 35,547 | 9,386 | 7,400 | 9,457 | 11,708 | 19,411 | 10,404 | 11,736 | 13,791 | 90,606 | 78,850 |
| **Total** | **226,194** | **195,761** | **28,433** | **23,410** | **33,675** | **41,474** | **63,525** | **44,069** | **44,992** | **52,811** | **396,719** | **357,525** |
| **PAD District 5** | | | | | | | | | | | | |
| Alaska | W | W | W | — | 2,478 | 2,428 | — | — | W | W | 7,544 | 5,900 |
| Arizona | W | 31,308 | 8,239 | 9,149 | W | W | W | W | 4,633 | 5,962 | 58,800 | 49,706 |
| California | 219,239 | 217,002 | 71,294 | 67,749 | 214,216 | 298,804 | 14,257 | 23,125 | 58,968 | 59,179 | 577,974 | 565,859 |
| Hawaii | 18,911 | W | W | W | W | W | W | W | W | 4,786 | 74,729 | 51,993 |
| Nevada | 22,124 | 19,950 | 1,559 | W | 3,557 | 2,408 | W | W | W | W | 34,669 | 37,488 |
| Oregon | 30,196 | 31,078 | 5,357 | 8,782 | 5,469 | W | W | W | W | 5,772 | 46,973 | 48,966 |
| Washington | 34,199 | 33,584 | 11,108 | 13,147 | 8,731 | 6,850 | W | W | W | W | 60,615 | 60,850 |
| **Total** | **367,623** | **355,009** | **100,816** | **103,055** | **270,743** | **334,869** | **35,620** | **38,737** | **86,502** | **84,092** | **861,304** | **915,762** |
| **U.S. Total** | **4,047,120** | **4,216,930** | **643,946** | **553,909** | **11,774,144** | **12,521,803** | **318,397** | **446,462** | **2,657,882** | **3,064,266** | **19,441,489** | **20,803,370** |

Source: Energy Information Administration, Petroleum Supply Annual, June 1983

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Four generations of American motorists have entrusted their cars to Quaker State protection. And we will not belie that trust. Quaker State's leading consumer motor oils are refined from choice 100% Pennsylvania Grade Crude Oil. That's a lot of peace of mind for the 25 million motorists who rely on the goodness of our motor oils.

QUAKER STATE OIL REFINING CORPORATION
Oil City, Pennsylvania

# Motor Oil Outlook: A 1983 Review

**Do-it-yourselfers continued to dominate the motor oil market in 1983, with seven out of 10 quarts purchased as carry outs.**

NPD Auto-Facts, of Houston, Texas, notes, however, that there was a minor slippage in the do-it-yourselfers' share of purchases last year. In 1982, carry-out volume was at the 71% level, and in 1983, it declined 1% to 70%.

Mass merchandisers generally had motor oils available for $1.06 per quart, up only 1¢ over 1982. But service station refills and changes averaged $1.65 per quart, an increase of 6¢ over 1982. Thus, not only did the consumer price go up higher at service stations but also the spread exceeded 35% in cost.

The average family in the NPD survey spent $15.76 on motor oils in 1983, a bit less than the year before. The average family also used a bit less motor oil in 1983—about a half-quart. This factor has been decreasing right along, probably reflecting better quality and longer-life motor oils which require fewer additions and extend change intervals.

Service stations continued to lose ground in 1983 as a source of motor oil purchases. The NPD Survey shows that the service station share of market declined to 18% in 1983, down 3% from 1982 and 5% from 1981. Picking up their "lost" business were car dealers, auto supply stores, garages and tire stores, whose share rose from 19% in 1981 to 20% in 1982 and to 23% in 1983.

NPD Auto-Facts uses a diary track methodology in its surveys and the figures reflect purchases by family households. NPD Auto-Facts, which has offices in Houston, New York, Chicago and Los Angeles, estimates that families purchase 50% to 60% of the motor oil bought for passenger cars and light trucks.

## The Market Share Battle

| | Avg. Retail Price | | | Market Shares | |
|---|---|---|---|---|---|
| **Retail Segment** | **1983** | **1982** | **Primary Market** | **1983** | **1982** |
| **Mass Merchandisers** (discount stores, department stores, supermarkets, drug stores and others) | $1.06 | $1.05 | DIY (a) | 59% | 59% |
| **Service Stations** | 1.65 | 1.59 | Reliers (b) | 18 | 21 |
| **Other Traditional Outlets** (car dealers, auto supply stores, garages and tire stores) | 1.30 | 1.36 | Reliers & DIY | 23 | 20 |
| **Total Industry** | **$1.21** | **$1.22** | | | |

(a) Do-it-yourselfers accounted for 70% of the motor oil purchases in 1983; (b) Motorists who rely on service stations, car dealers, etc., to change their oil.

## The Channels of Distribution (a)

| | 1983 | 1982 | 1981 | 1980 |
|---|---|---|---|---|
| Service Stations | NA | 20.8% | 23.4% | 25.7% |
| Discount Stores | NA | 30.1 | 29.2 | 29.3 |
| Department Stores | NA | 10.0 | 7.6 | 8.2 |
| Supermarket/Drug Stores | NA | 9.2 | 9.3 | 8.6 |
| Others | NA | 10.1 | 11.3 | 10.1 |
| Auto Supply Stores | NA | 9.8 | 10.5 | 9.7 |
| Tire Store/Garages | NA | 5.2 | 4.3 | 5.3 |
| Car Dealers | NA | 4.8 | 4.4 | 3.1 |

(a) By quarts by place of purchase

## How the Oil Is Used

| | 1983 | 1982 | 1981 | 1980 |
|---|---|---|---|---|
| Oil Change | 49% | 48% | 46% | 45% |
| Add Oil | 17 | 18 | 20 | 20 |
| Future Use | 15 | 13 | 14 | 16 |
| Duplicate Use | 19 | 21 | 20 | 19 |

## Who Buys the Most of It

| | 1983 | 1982 | 1981 | 1980 |
|---|---|---|---|---|
| Carried Out by Purchaser (installed at some other place (a) | 70% | 71% | 70% | 69% |
| Installed Where Bought (b) | 30 | 29 | 30 | 31 |

(a) Generally considered to be the do-it-yourselfer; (b) generally considered to be the "relier," i.e., depending on service man for performance.

## Dollars Spent per Average Family

| | 1983 | 1982 | 1981 | 1980 |
|---|---|---|---|---|
| Dollars Spent | $15.76 | $16.56 | $17.10 | $16.91 |
| Average Price Paid per Quart | 1.21 | 1.22 | 1.17 | 1.08 |
| Average Quarts per Transaction | 4.30 | 4.10 | 4.10 | 4.40 |
| Annual Quarts Purchased | 13.00 | 13.60 | 14.70 | 15.70 |

Source: The Petroleum Marketing Index (NPD Research, Inc.), May 1984

# Lube Oil Sales Projections

## U.S. Demand for Automotive Lube Base Oils

(Add 000,000)

| Year | Engine Oils | Hydraulic Oils | Other Lubes | Total | Total |
|---|---|---|---|---|---|
| 1990 | 923 | 187 | 48 | 1,158 | 27.6 |
| 1985 | 933 | 174 | 45 | 1,152 | 27.4 |
| 1984 | 924 | 172 | 44 | 1,140 | 27.1 |
| 1983 | 896 | 170 | 43 | 1,109 | 26.4 |
| 1982 | 884 | 164 | 40 | 1,088 | 25.9 |
| 1981 | 905 | 165 | 44 | 1,114 | 26.5 |

Source: Jon S. Helman, Sun Refining & Marketing Company, May 1984

## U.S. Demand for Lubricating Base Oils

(Add 000,000)

| Year | Total | Automotive Lubes | Industrial Lubes | Process Oils | Losses/ Minor Prod. |
|---|---|---|---|---|---|
| 1990 | 59.0 | 27.6 | 19.3 | 8.4 | 3.7 |
| 1985 | 55.9 | 27.4 | 18.2 | 6.8 | 3.5 |
| 1984 | 54.4 | 27.1 | 17.1 | 6.7 | 3.5 |
| 1983 | 51.9 | 26.4 | 15.9 | 6.2 | 3.4 |
| 1982 | 50.8 | 25.9 | 15.6 | 6.0 | 3.3 |
| 1981 | 55.8 | 26.5 | 18.6 | 7.1 | 3.6 |

Source: Jon S. Helman, Sun Refining & Marketing Company, May 1984

## Past and Projected Demand for Finished Lubes

(Millions of gal.)

| Automotive | 1982 | 1983 | 1984 | 1985 | 1990 |
|---|---|---|---|---|---|
| On-Road Engine Oil | 783 | 795 | 808 | 821 | 782 |
| Off-Road Engine Oil | 221 | 223 | 234 | 239 | 267 |
| Hydraulic Oil | 186 | 193 | 195 | 198 | 212 |
| Gear Oil | 46 | 49 | 50 | 51 | 54 |
| **Total Automotive** | **1,236** | **1,260** | **1,287** | **1,309** | **1,315** |

(Millions of gal.)

| Industrial Oils | 1982 | 1983 | 1984 | 1985 | 1990 |
|---|---|---|---|---|---|
| General Lubes | 393 | 401 | 428 | 457 | 484 |
| Metalworking Oil | 154 | 155 | 172 | 190 | 198 |
| Industrial Engine Oil | 134 | 135 | 142 | 148 | 160 |
| Process Oil | 261 | 270 | 290 | 295 | 365 |
| **Total Industrial** | **942** | **961** | **1,032** | **1,090** | **1,207** |
| **Total Lubes** | **2,178** | **2,221** | **2,319** | **2,386** | **2,522** |

Source: Jon S. Helman, Sun Refining & Marketing Company, May 1984

## Automotive Sales

(Add 000 Gallons)

| | 1982 | 1981 |
|---|---|---|
| SAE J-193a, Engine Oils | | |
| Monograded | 425,450 | 479,099 |
| Multi-graded | 530,946 | 506,593 |
| Sub Total | **956,396** | **985,692** |
| Non SAE J-183a, Engine Oils | | |
| Aircraft | 9,227 | 11,119 |
| Gasoline Fueled Two-stroke | 11,735 | 11,915 |
| **Sub Total** | **20,962** | **23,034** |
| Transmission and Hydraulic Fluids | | |
| Automatic Trans. Fluids | 126,727 | 128,187 |
| Universal Fractor Fluids | 42,726 | 40,078 |
| Shock Absorber Steering Fluid | 8,108 | 8,944 |
| Other (Manual Trans., etc.) | 2,780 | 3,883 |
| **Sub Total** | **180,341** | **181,092** |
| Gear Lubricants | | |
| GL-4 Less | 4,531 | 6,410 |
| GL-5 and GL-6 | 40,165 | 43,812 |
| **Sub Total** | **44,696** | **50,222** |
| **Total Automotive** | **1,202,395** | **1,240,040** |

Source: National Petroleum Refiners Association (NPRA) "*1982 Report on U.S. Lubricating Oil Sales*"

## Industrial Sales

(Add 000 Gallons)

| | 1982 | 1981 |
|---|---|---|
| General Industrial Lubricants | | |
| Hydraulic Oils | 181,096 | 215,223 |
| Gear Oils | 32,337 | 38,825 |
| Other Specified | 119,906 | 152,458 |
| Other Unspecified | 1,199 | 3,201 |
| **Sub Total** | **333,730** | **409,707** |
| Industrial Engine Oils | | |
| Railroad Diesel | 50,043 | 58,368 |
| Marine | 42,691 | 51,157 |
| Natural Gas | 41,221 | 42,361 |
| **Sub Total** | **133,955** | **151,886** |
| Metalworking | | |
| Specified | 74,813 | 87,804 |
| Unspecified | 2,495 | 2,034 |
| **Sub Total** | **77,308** | **89,838** |
| Process Oils | | |
| Specified | 248,536 | 290,887 |
| **Total Industrial** | **793,529** | **942,318** |

Source: National Petroleum Refiners Association (NPRA) "*1982 Report on U.S. Lubricating Oil Sales*"

## Total Industrial & Automotive Lube Sales

(Add 000 gal.)

| | 1982 | 1981 | 1980 |
|---|---|---|---|
| **Total Industrial Lube Sales** | **793,529** | **942,318** | **958,849** |
| **Total Automotive Lube Sales** | **1,202,395** | **1,240,040** | **1,265,316** |
| **GRAND TOTAL** | **1,995,924** | **2,182,358** | **2,224,165** |

Source: National Petroleum Refiners Association "*1982 Report on U.S. Lubricating Oil Sales*"

# 6 Reasons to Install Red Jacket Petroleum Pumping Systems

1. **Selection.** Red Jacket is the only manufacturer offering a selection of ⅓, ¾ and 1½ HP in 4-inch diameter pumps and 1, 1½, 2, 3 and 5 HP in 6-inch diameters.
2. **Integrated design.** Only Red Jacket manufactures both the motor and pump assembly in the 4-inch series. And Red Jacket still offers the best pump-motor replacement program in the industry.
3. **Exclusive manifold design.** The Red Jacket leak detector screws directly into the manifold. This eliminates the need for an adapter and pipe nipple, reduces installation time and permits the use of a smaller manhole—resulting in a lower total system cost.
4. **Ease of servicing.** One small assembly contains all the functional elements of the pump and can be removed easily, as a unit.
5. **Fast delivery.** Order processing on common 4-inch pump sizes averages between 3 and 5 working days.
6. **Sizing assistance.** Red Jacket's application engineers are highly qualified to assist in sizing and pump selection on any submersible installation.

## and One Bonus Reason . . . The Marley Pump Connection

As a result of the merger with Hydromatic Pumps and association with other Marley companies, the Red Jacket line of equipment for petroleum applications is now even larger, including—

- Self-priming, explosion-proof, motor-driven centrifugals for fuel transfer.
- Line shaft turbine pumps with capacities from 50 gpm to 70,000 gpm suitable for many fuel and distillate pumping applications.

| | |
|---|---|
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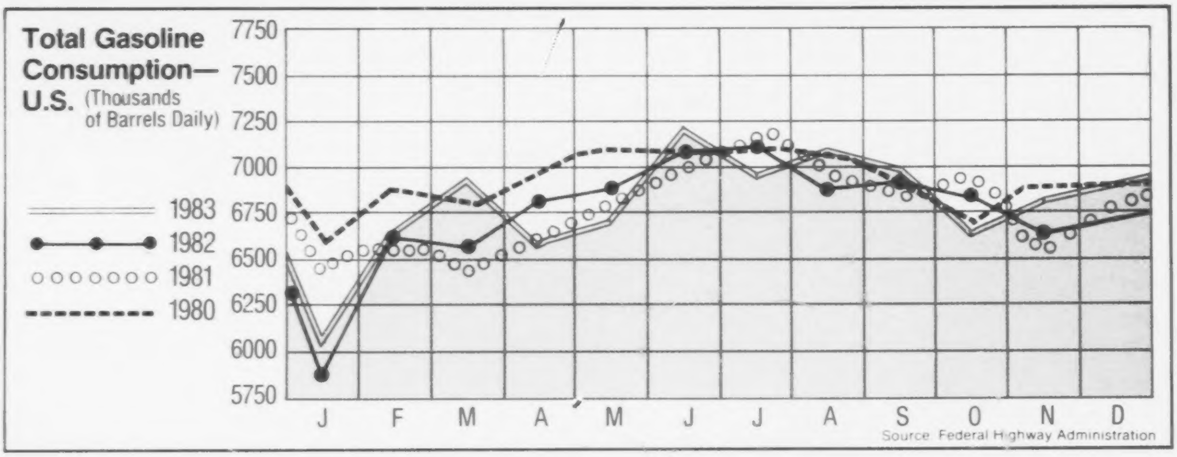
RJ-P-185



**Total Gasoline Consumption—U.S.** (Thousands of Barrels Daily)

Source: Federal Highway Administration

# Gasoline Consumption by States

**(Includes consumption on-highway, off-highway, and other uses.)**

| | 1983 Rank | (Add 000 gal.) 1983 (a) | (Add 000 gal.) 1982 (b) | % Chng. '83 v. '82 |
|---|---|---|---|---|
| Alabama | 23 | 1,861,406 | 1,840,396 | 1.1% |
| Alaska | 50 | 221,229 | 235,112 | -8.9 |
| Arizona | 27 | 1,410,904 | 1,341,613 | 5.2 |
| Arkansas | 33 | 1,128,357 | 1,123,466 | 0.4 |
| California | 1 | 11,032,662 | 10,660,534 | 3.5 |
| Colorado | 25 | 1,544,737 | 1,513,235 | 2.9 |
| Connecticut | 29 | 1,308,077 | 1,284,966 | 1.8 |
| Delaware | 48 | 308,772 | 282,462 | 9.3 |
| District of Columbia | 51 | 168,802 | 170,518 | -1.0 |
| Florida | 4 | 5,078,234 | 4,900,197 | 3.6 |
| Georgia | 11 | 2,904,369 | 2,818,366 | 2.1 |
| Hawaii | 46 | 355,332 | 349,098 | 1.8 |
| Idaho | 41 | 459,377 | 456,063 | 0.7 |
| Illinois | 6 | 4,609,220 | 4,522,361 | 1.9 |
| Indiana | 14 | 2,479,277 | 2,431,388 | 2.6 |
| Iowa | 28 | 1,394,699 | 1,420,817 | -1.8 |
| Kansas | 30 | 1,240,248 | 1,236,159 | 0.3 |
| Kentucky | 24 | 1,734,296 | 1,721,620 | 0.7 |
| Louisiana | 17 | 2,151,035 | 2,145,094 | 0.2 |
| Maine | 38 | 515,891 | 505,620 | 2.8 |
| Maryland | 22 | 1,892,434 | 1,888,873 | 0.2 |
| Massachusetts | 16 | 2,266,746 | 2,235,986 | 1.4 |
| Michigan | 8 | 3,680,884 | 3,795,814 | -2.0 |
| Minnesota | 19 | 1,985,492 | 1,931,205 | 2.8 |
| Mississippi | 32 | 1,158,134 | 1,151,872 | 0.5 |
| Missouri | 13 | 2,529,042 | 2,494,873 | 1.4 |
| Montana | 40 | 459,851 | 452,371 | 1.7 |
| Nebraska | 35 | 776,930 | 792,579 | -2.0 |
| Nevada | 39 | 489,835 | 490,270 | -0.1 |
| New Hampshire | 44 | 408,586 | 393,276 | 3.9 |
| New Jersey | 9 | 3,371,871 | 3,371,871 | 6.3 |
| New Mexico | 36 | 740,916 | 744,599 | -0.5 |
| New York | 3 | 5,491,074 | 5,617,353 | -2.2 |
| North Carolina | 10 | 2,911,221 | 2,842,968 | 2.4 |
| North Dakota | 43 | 390,085 | 403,067 | -3.2 |
| Ohio | 5 | 4,649,742 | 4,561,134 | 1.9 |
| Oklahoma | 21 | 1,907,622 | 1,929,207 | -1.1 |
| Oregon | 31 | 1,222,903 | 1,211,110 | 1.0 |
| Pennsylvania | 7 | 4,370,547 | 4,384,130 | -0.4 |
| Rhode Island | 45 | 365,634 | 360,833 | 1.3 |
| South Carolina | 26 | 1,539,188 | 1,515,808 | 1.5 |
| South Dakota | 42 | 389,412 | 393,021 | -0.9 |
| Tennessee | 15 | 2,331,655 | 2,355,395 | -1.0 |
| Texas | 2 | 8,393,680 | 8,201,687 | 2.3 |
| Utah | 37 | 725,317 | 734,020 | -1.2 |
| Vermont | 49 | 242,056 | 236,905 | 2.2 |
| Virginia | 12 | 2,554,245 | 2,493,638 | 2.4 |
| Washington | 20 | 1,919,152 | 1,851,127 | 3.7 |
| West Virginia | 34 | 801,736 | 810,848 | -1.1 |
| Wisconsin | 18 | 2,011,843 | 1,982,060 | 1.5 |
| Wyoming | 47 | 338,752 | 359,425 | -5.8 |
| **Total U.S.** | — | **104,240,610** | **102,747,065** | **1.5%** |

---

(a) Preliminary; (b) Revised and final.

Source: Federal Highway Administration, Monthly Reports.

# . . . and by Types of Vehicles

| | Passenger Vehicles | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Buses | | | | | |
| | Cars and Motorcycles | | Commercial | School | All Buses | Total Passenger | Trucks and Combinations | All Motor Vehicles |
| Fuel consumed (million gal.) | 69,730 | (a) | 721 | 399 | 1,120 | 70,850 | 42,534 | 113,383 |
| Average per vehicle (gal.) | 539 | (b) | 6,356 | 894 | 2,003 | 545 | 1,207 | 686 |
| Average miles per gal. | 16.48 | (c) | 4.96 | 7.68 | 5.93 | 16.31 | 10.27 | 14.05 |
| Vehicles registered (thousands) | 129,441 | (d) | 114 | 446 | 559 | 130,000 | 35,253 | 165,253 |
| Average miles traveled | 8,876 | (e) | 31,524 | 6,870 | 11,872 | 8,889 | 12,395 | 9,637 |
| Average miles traveled (millions): | | | | | | | | |
| Main rural roads | 277,050 | | 787 | 798 | 1,585 | 278,635 | 133,609 | 412,224 |
| Local rural roads | 186,317 | | 461 | 1,021 | 1,482 | 187,799 | 90,642 | 278,441 |
| Urban streets | 685,516 | | 2,303 | 1,176 | 3,572 | 689,088 | 212,708 | 901,796 |
| **Total travel 1982 (f)** | **1,148,883** | | **3,577** | **3,062** | **6,639** | **1,155,522** | **436,959** | **1,592,481** |
| **Total travel 1981 (g)** | **1,124,843** | | **3,541** | **2,960** | **6,501** | **1,131,344** | **425,127** | **1,556,471** |

---

(a) Includes 69,430,000,000 for passenger cars and 300,000,000 for motorcycles; (b) 561 for passenger cars and 52 for motorcycles; (c) 16.33 for passenger cars and 50.00 for motorcycles; (d) 123,697,863 for passenger cars and 5,743,463 for motorcycles; (e) 9,167 for passenger cars and 2,612 for motorcycles; (f) includes 1,133,883,000 for passenger cars and 15,000,000 for motorcycles; (g) includes 1,109,843,000 for passenger cars and 15,000,000 for motorcycles.

Source: Federal Highway Administration, Table 5582-14 (VM-), October 1983.

# State Gasoline Consumption by Rank

| | 1983 Rank | 1982 Rank | (Add 000 gal.) 1983 Total |
|---|---|---|---|
| California | 1 | 1 | 11,032,662 |
| Texas | 2 | 2 | 8,393,680 |
| New York | 3 | 3 | — |
| Florida | 4 | 4 | 5,078,234 |
| Ohio | 5 | 6 | 4,649,742 |
| Illinois | 6 | 5 | 4,609,320 |
| Pennsylvania | 7 | 7 | 4,370,547 |
| Michigan | 8 | 8 | 3,680,884 |
| New Jersey | 9 | 9 | 3,371,871 |
| North Carolina | 10 | 10 | 2,911,221 |
| Georgia | 11 | 11 | 2,904,369 |
| Virginia | 12 | 13 | 2,554,245 |
| Missouri | 13 | 12 | 2,529,042 |
| Indiana | 14 | 14 | 2,479,277 |
| Tennessee | 15 | 15 | 2,331,655 |
| Massachusetts | 16 | 16 | 2,266,746 |
| Louisiana | 17 | 17 | 2,151,035 |
| Wisconsin | 18 | 18 | 2,011,843 |
| Minnesota | 19 | 19 | 1,985,492 |
| Washington | 20 | 22 | 1,919,152 |
| Oklahoma | 21 | 20 | 1,907,622 |
| Maryland | 22 | 21 | 1,892,434 |
| Alabama | 23 | 23 | 1,861,406 |
| Kentucky | 24 | 24 | 1,734,296 |
| Colorado | 25 | 26 | 1,544,737 |
| South Carolina | 26 | 25 | 1,539,188 |
| Arizona | 27 | 28 | 1,410,904 |
| Iowa | 28 | 27 | 1,394,699 |
| Connecticut | 29 | 30 | 1,308,077 |
| Kansas | 30 | 30 | 1,204,200 |
| Oregon | 31 | 31 | 1,222,903 |
| Mississippi | 32 | 32 | 1,158,134 |
| Arkansas | 33 | 33 | 1,128,357 |
| West Virginia | 34 | 34 | 801,736 |
| Nebraska | 35 | 36 | 776,930 |
| New Mexico | 36 | 37 | 740,916 |
| Utah | 37 | 35 | 725,317 |
| Maine | 38 | 38 | 515,891 |
| Nevada | 39 | 39 | 489,835 |
| Montana | 40 | 41 | 459,851 |
| Idaho | 41 | 40 | 459,377 |
| South Dakota | 42 | 43 | 389,412 |
| North Dakota | 43 | 42 | 390,085 |
| New Hampshire | 44 | 44 | 408,586 |
| Rhode Island | 45 | 45 | 365,634 |
| Hawaii | 46 | 47 | 355,332 |
| Wyoming | 47 | 46 | 338,752 |
| Delaware | 48 | 48 | 308,772 |
| Vermont | 49 | 49 | 240,056 |
| Alaska | 50 | 50 | 221,229 |
| District of Columbia | 51 | 51 | 168,802 |

Source: Federal Highway Administration, Monthly Reports.

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Houston, Texas 77073
713/821-9865

# Gasoline Octanes, U.S. Service Stations

| Year | Season | Regular grade (1) | | | Premium grade (2) | | | Unleaded grade | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Rsh. | Mtr. | (R + M)*/2 | Rsh. | Mtr. | (R + M)*/2 | Rsh. | Mtr. | (R + M)*/2 |
| 1983 | Summer | 93.1 | 84.9 | 89.0 | — | — | — | 92.0(a)<br>96.2(b) | 82.9(a)<br>86.5(b) | 87.5(a)<br>91.4(b) |
| 1982-83 | Winter | 92.9 | 85.2 | 89.1 | — | — | — | 91.7(a)<br>96.3(b) | 82.9(a)<br>86.7(b) | 87.3(a)<br>91.5(b) |
| 1982 | Summer | 93.0 | 85.0 | 89.0 | — | — | — | 91.9(a)<br>96.8(b) | 82.8(a)<br>86.6(b) | 87.3(a)<br>91.7(b) |
| 1981-82 | Winter | 92.7 | 85.1 | 88.9 | 98.1 | 87.8 | 93.0 | 91.8(a)<br>96.6(b) | 82.9(a)<br>86.8(b) | 87.4(a)<br>91.7(b) |
| 1981 | Summer | 92.8 | 85.1 | 89.0 | — | — | — | 91.9(a)<br>96.3(b) | 83.0(a)<br>86.2(b) | 87.4(a)<br>91.3(b) |
| 1980-81 | Winter | 92.8 | 85.4 | 89.1 | 97.3 | 89.2 | 93.3 | 91.9(a)<br>96.1(b) | 83.3(a)<br>86.5(b) | 87.6(a)<br>91.4(b) |
| 1980 | Summer | 96.2 | 85.2 | 88.9 | 97.0 | 88.6 | 92.8 | 92.1(a)<br>96.1(b) | 83.4(a)<br>86.4(b) | 87.8(a)<br>91.6(b) |
| 1979-80 | Winter | 92.5 | 85.5 | 89.0 | 97.2 | 89.3 | 93.2 | 92.1(a)<br>97.1(b) | 83.7(a)<br>87.0(b) | 87.9(a)<br>92.1(b) |
| 1979 | Summer | 92.8 | 85.7 | 89.3 | 97.6 | 89.8 | 93.7 | 93.0 | 84.1 | 88.6 |
| 1978-79 | Winter | 93.2 | 85.9 | 89.6 | 98.0 | 90.3 | 94.2 | 93.1 | 84.3 | 88.7 |
| 1978 | Summer | 93.2 | 85.7 | 89.5 | 98.2 | 90.4 | 94.3 | 93.0 | 83.9 | 88.5 |
| 1977-78 | Winter | 93.2 | 85.7 | 89.5 | 98.8 | 91.0 | 94.9 | 92.9 | 83.9 | 88.4 |
| 1977 | Summer | 93.2 | 85.9 | 89.6 | 98.7 | 91.2 | 95.0 | 92.9 | 83.9 | 88.5 |
| 1976-77 | Winter | 93.2 | 86.1 | 89.7 | 98.8 | 91.4 | 95.1 | 92.6 | 84.1 | 88.4 |
| 1976 | Summer | 93.3 | 86.0 | 89.6 | 98.9 | 91.4 | 95.2 | 92.4 | 83.9 | 88.2 |
| 1975-76 | Winter | 93.4 | 86.0 | 89.7 | 98.9 | 91.4 | 95.2 | 92.3 | 84.0 | 88.2 |
| 1975 | Summer | 93.4 | 86.0 | 89.7 | 98.9 | 91.4 | 95.2 | 92.1 | 83.9 | 88.0 |
| 1974-75 | Winter | 93.4 | 86.1 | 89.9 | 98.9 | 91.6 | 95.3 | 92.3 | 84.0 | 88.2 |

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*Antiknock index

(1) Below 93.0 octane. (2) 93.0 octane and above.

(a) Unleaded antiknock (octane) index data below 90. (b) Unleaded antiknock (octane) index data 90 and above.

Source: Motor Gasolines, Summer 1983—National Institute for Petroleum and Energy Research, Bartlesville, OK, April 1984

# Octane Numbers Flatten Out

**It was almost a Mexican standoff in the variation of octane numbers between the summer of 1982 and the summer of 1983, according to National Institute for Petroleum and Energy Research, which took over the study series previously handled by the Bartlesville, Okla., Energy Technology Center.**

Unleaded gasolines below 90-octane rose slightly—from 87.3-octane in the summer of 1982 to 87.5 in the summer of 1983. At the same time, the octane number for unleaded gasolines above 90 dropped from 91.7 in 1982 to 91.4 in 1983. Leaded regular gasolines showed no change in octane averages.

| | Unleaded Octane Number | | | | | | Leaded Octane Number (a) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Index Below 90 | | | Index Above 90 | | | Index Below 93 | | | Index Above 93 | | |
| | Rsch. | Mtr. | (R + M) ÷ 2 | Rsch. | Mtr. | (R + M) ÷ 2 | Rsch. | Mtr. | (R + M) ÷ 2 | Rsch. | Mtr. | (R + M) ÷ 2 |
| Northeast | 92.1 | 82.7 | 87.4 | 96.6 | 86.6 | 91.6 | 93.7 | 84.9 | 89.4 | — | — | — |
| Mid-Atlantic Coast | 92.3 | 82.7 | 87.5 | 96.8 | 86.4 | 91.6 | 93.4 | 85.0 | 89.2 | — | — | — |
| Southeast | 92.1 | 82.7 | 87.4 | 96.5 | 86.6 | 91.5 | 93.4 | 85.2 | 89.3 | — | — | — |
| Appalachian | 91.8 | 82.8 | 87.3 | 96.1 | 86.4 | 91.3 | 93.1 | 85.4 | 89.3 | — | — | — |
| Michigan | 91.4 | 82.9 | 87.2 | 95.9 | 86.4 | 91.2 | 93.6 | 85.8 | 89.7 | — | — | — |
| North Illinois | 91.6 | 83.2 | 87.4 | 95.5 | 87.4 | 91.5 | 92.8 | 85.3 | 89.1 | — | — | — |
| Central Mississippi | 92.2 | 82.9 | 87.6 | 95.9 | 86.7 | 91.3 | 93.6 | 85.2 | 89.4 | — | — | — |
| Lower Mississippi | 92.3 | 82.7 | 87.5 | 96.7 | 86.6 | 91.7 | 93.0 | 85.2 | 89.1 | — | — | — |
| North Plains | 92.1 | 83.5 | 87.8 | 96.8 | 87.6 | 92.2 | 92.0 | 83.8 | 88.0 | — | — | — |
| Central Plains | 91.8 | 83.1 | 87.4 | 95.6 | 85.4 | 90.5 | 93.3 | 84.9 | 89.1 | — | — | — |
| South Plains | 92.0 | 82.7 | 87.4 | 95.6 | 86.3 | 91.0 | 92.6 | 84.7 | 88.7 | — | — | — |
| South Texas | 92.1 | 82.8 | 87.5 | 96.7 | 86.5 | 91.6 | 93.1 | 85.5 | 89.3 | — | — | — |
| South Mountain States | 91.0 | 82.4 | 86.7 | 96.5 | 85.9 | 91.2 | 92.0 | 84.1 | 88.1 | — | — | — |
| North Mountain States | 90.8 | 82.7 | 86.8 | 94.4 | 86.4 | 90.4 | 92.6 | 83.4 | 88.1 | — | - | — |
| Pacific Northwest | 92.1 | 83.2 | 87.7 | 96.1 | 86.6 | 91.4 | 93.1 | 85.0 | 89.1 | — | — | — |
| North California | 92.9 | 83.3 | 88.1 | 97.0 | 86.1 | 91.5 | 93.5 | 85.1 | 89.3 | — | — | — |
| South California | 93.1 | 83.1 | 88.2 | 96.8 | 86.3 | 91.6 | 93.9 | 85.0 | 89.5 | — | — | — |
| **Average** | | | | | | | | | | | | |
| **Summer 1983** | **92.0** | **82.9** | **87.5** | **96.2** | **86.5** | **91.4** | **93.1** | **84.9** | **89.0** | — | — | — |
| **Summer 1982** | **91.9** | **82.8** | **87.3** | **96.8** | **86.6** | **91.7** | **93.0** | **85.0** | **89.0** | — | — | — |

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(a) In 1981, DOE began two classifications for leaded gasoline—below 93 octane and above 93 octane. However, nothing has been published in the above 93 octane since the winter of 1981-82.

Source: National Institute for Petroleum and Energy Research, which succeeded DOE's Bartlesville (Okla.) Energy Technology Center in this project. "Motor Gasolines, Summer 1983."

# OUR NEW BUSINESS MANAGER CAN HELP YOU REGISTER BIGGER PROFITS.

It's the Gilbarco TCR-14, or Transac Cash Register, a new electronic wonder that's designed to work with our electronic dispensers. And if you run a convenience store or a service station that sells other merchandise, it can help you manage your business better than ever before.

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The TCR-14 combines an electronic cash register, a control console and a management center all in one unit. That's good news for many reasons. It saves valuable counter space. It can control up to 16 pumps, up to 6 grades of fuel, and up to 16 other merchandise catagories.

And the TCR-14 is part of the complete Gilbarco retail system. Which means you deal with a company that truly knows your business and is dedicated to solving your problems.

To find out more details, contact your Gilbarco distributor. Or Gilbarco Inc., P.O. Box 22087, Greensboro, NC 27420, telephone 919/292-3011.

**Gilbarco**

# Gasohol Consumption by States—1982

**The following table was prepared by the Federal Highway Administration and contains a variety of caveats, as follows:** the table shows gross gallons of gasohol reported by the distributors in each state. However, this total must not be considered a national total. In states where gasohol is taxed at the same rate as gasoline, the gallonage data are not reported separately and are commingled with gasoline data. In other states, however, partial tax exemptions have been legislated but the reporting systems have not yet been converted for separate reporting. In any case, the totals on the state should be considered minimums and not maximums for states and the nation as a whole.

**(Add 000 gal.)**

| State | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Alabama** | 927 | 1,120 | 961 | 902 | 1,133 | 894 | 909 | 813 | 806 | 1,114 | 748 | 1,194 | 11,521 |
| **Alaska** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Arizona** | 693 | 185 | — | 848 | 1,007 | 787 | 344 | 206 | 246 | 184 | 262 | 334 | 5,096 |
| **Arkansas** | 184 | 824 | 786 | 698 | 755 | 666 | 743 | 755 | 683 | 716 | 974 | 678 | 8,462 |
| California | 22.200 | 23.447 | 30.175 | 28.404 | 32.125 | 29.892 | 44.622 | 52.867 | 51.343 | 43.760 | 46.705 | 58.464 | 464.004 |
| Colorado | 2.122 | 2.128 | 2.134 | 2.097 | 2.026 | 199 | 2.787 | 845 | 455 | 2.916 | 3.191 | 3.090 | 23.990 |
| Connecticut | 441 | 436 | 427 | 335 | 328 | 422 | 359 | 351 | 372 | 355 | 264 | 371 | 4.461 |
| Delaware | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Dist. of Col.** | — | — | 4 | 5 | — | — | 6 | 8 | — | 2 | 4 | 5 | 34 |
| **Florida** | 4,975 | 6,507 | 8,343 | 7,660 | 8,781 | 5,835 | 7,288 | 7,790 | 8,318 | 11,629 | 11,848 | 14,079 | 103,053 |
| **Georgia** | 14 | 24 | 24 | 1 | 19 | 4 | 4 | 2 | 2 | 8 | 20 | 26 | 148 |
| **Hawaii** | 81 | 75 | 82 | 67 | 63 | — | — | — | — | — | — | — | 368 |
| Idaho | — | — | — | — | — | — | — | 549 | 509 | 453 | 478 | 475 | 2.464 |
| Illinois | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Indiana | 2.624 | 2.220 | 2.753 | 4.690 | 3.208 | 5.516 | 13.624 | 12.213 | 16.328 | 18.116 | 19.268 | 20.009 | 120.569 |
| Iowa | 29.299 | 34.001 | 41.666 | 44.389 | 42.387 | 43.704 | 45.218 | 44.757 | 41.756 | 44.421 | 43.904 | 43.134 | 498.636 |
| **Kansas** | 738 | 693 | 619 | 614 | 583 | 550 | 551 | 588 | 588 | 571 | 680 | 673 | 7,448 |
| **Kentucky** | 472 | 202 | 161 | 232 | 216 | 230 | 1,273 | 294 | 1,298 | 5,756 | 477 | 8,261 | 18,872 |
| **Louisiana** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Maine** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Maryland | 8 | 12 | 10 | 8 | 10 | 9 | — | 16 | 12 | — | 15 | 7 | 107 |
| Massachusetts | 24 | 26 | 14 | 31 | 34 | 18 | 27 | 25 | 24 | 26 | 22 | 19 | 290 |
| Michigan | 7.732 | 6.913 | 10.192 | 9.027 | 7.735 | 11.374 | 13.907 | 20.404 | 21.775 | 39.605 | 26.218 | 31.912 | 206.794 |
| Minnesota | 524 | 67 | 181 | 443 | 208 | 271 | 165 | 204 | 468 | 516 | 860 | 746 | 4.653 |
| **Mississippi** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Missouri** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Montana** | 162 | 233 | 252 | 508 | 987 | 1,286 | 1,261 | 1,213 | 843 | 1,023 | 1,208 | 1,194 | 10,170 |
| **Nebraska** | 3,637 | 4,016 | 4,817 | 4,762 | 4,647 | 6,180 | 7,279 | 9,254 | 10,454 | 11,030 | 11,404 | 12,218 | 89,698 |
| Nevada | 98 | 93 | 93 | 89 | 81 | 84 | 88 | 76 | 65 | 68 | 75 | 54 | 964 |
| New Hampshire | — | — | — | — | — | — | — | — | — | — | — | — | — |
| New Jersey | — | — | — | — | — | — | — | — | — | — | — | — | — |
| New Mexico | 50 | 108 | 91 | 84 | 79 | 96 | 97 | 92 | 94 | 90 | 94 | 107 | 1,082 |
| **New York** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **North Carolina** | 587 | 670 | 687 | 680 | 620 | 679 | 753 | 560 | 494 | 587 | 604 | 535 | 7,456 |
| **North Dakota** | 830 | 716 | 474 | 647 | 455 | 462 | 537 | 439 | 525 | 224 | 634 | 556 | 6,499 |
| **Ohio** | 2,202 | 1,909 | 1,404 | 1,038 | 897 | 1,712 | 3,165 | 5,115 | 8,195 | 19,986 | 19,304 | 26,752 | 91,679 |
| Oklahoma | 2.781 | 7.222 | 5.300 | 4.993 | 6.679 | 8.017 | 13.124 | 17.643 | 23.308 | 19.638 | 21.536 | 24.812 | 155.053 |
| Oregon | 144 | 150 | 168 | 169 | 190 | 188 | 188 | 192 | 178 | 174 | 164 | 168 | 2.073 |
| Pennsylvania | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Rhode Island | 22 | — | — | — | — | — | — | — | — | — | — | — | 22 |
| **South Carolina** | 1,605 | 1,493 | 1,844 | 2,047 | 1,816 | 1,983 | 3,752 | 5,833 | 7,342 | 8,814 | 12,101 | 11,058 | 59,688 |
| **South Dakota** | 469 | 431 | 322 | 905 | 998 | 975 | 1,044 | 1,083 | 1,678 | 2,123 | 1,874 | 1,686 | 13,808 |
| **Tennessee** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Texas** | 383 | 410 | 540 | 543 | 559 | 488 | 1,316 | 1,963 | 3,581 | 6,580 | 7,437 | 14,342 | 38,142 |
| Utah | — | — | — | — | — | — | — | — | — | — | — | 500 | 500 |
| Vermont | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Virginia | 778 | 2.644 | 1.562 | 1.854 | 2.184 | 2.845 | 3.323 | 2.550 | 2.774 | 3.783 | 3.776 | 2.761 | 30.834 |
| Washington | 266 | 911 | 482 | 471 | 387 | 363 | 516 | 811 | 1.232 | 682 | 838 | 271 | 7.230 |
| **West Virginia** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Wisconsin** | 307 | 455 | 174 | 222 | 204 | 145 | 89 | 334 | 149 | 186 | 213 | 240 | 2,718 |
| **Wyoming** | 46 | 36 | 35 | 22 | 25 | 17 | 16 | 15 | 10 | 13 | 13 | 11 | 259 |
| **Total** | **87.445** | **100.377** | **116.977** | **119.485** | **121.426** | **125.891** | **168.375** | **189.860** | **205.905** | **245.149** | **237.213** | **280.742** | **1.998.845** |

Source: Federal Highway Administration, Monthly Gasoline Reports, 1983

# Gasohol Consumption by States—1983

**The table below, prepared by the Federal Highway Administration, shows gross gallons of gasohol reported by the distributors in each state.** However, the agency says, the total must not be considered as a national total. In states where gasohol is taxed at the same rate as gasoline, the gallonage data are not reported separately and are commingled with gasoline data. In other states, however, partial tax exemptions have been legislated but the reporting systems have not yet been converted for separate reporting. In any case, this total should be considered a minimum not a national total. This also is a preliminary report.

**(Add 000 gal.)**

| State | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Alabama** | 1,621 | 1,937 | 2,572 | 2,217 | 2,253 | 2,589 | 2,401 | 2,742 | 2,537 | 2,729 | 2,843 | 3,196 | 29,637 |
| **Alaska** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Arizona** | — | 79 | 11 | 350 | 115 | 150 | 27 | 12 | 22 | 6 | — | — | 772 |
| **Arkansas** | 291 | 1,310 | 1,064 | 1,018 | 943 | 1,031 | 1,200 | 1,419 | 1,219 | 718 | 1,534 | 884 | 12,631 |
| California | 51,741 | 37,266 | 44,414 | 33,571 | 44,036 | 46,127 | 48,346 | 45,017 | 32,421 | 26,845 | 37,229 | 33,837 | 480,850 |
| Colorado | 4,389 | 3,400 | 4,105 | 3,931 | 3,363 | 3,400 | 3,500 | 2,700 | 4,500 | 8,900 | 8,500 | 6,000 | 56,688 |
| Connecticut | 407 | 433 | 410 | 226 | — | — | — | — | — | — | — | — | 1,476 |
| Delaware | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Dist. of Col.** | 1 | 1 | 4 | 10 | — | — | — | — | — | 2 | — | — | 18 |
| **Florida** | 13,790 | 16,977 | 24,560 | 24,755 | 26,738 | 32,063 | 35,639 | 35,027 | 33,587 | 36,605 | 36,097 | 41,394 | 357,232 |
| **Georgia** | 29 | 20 | 29 | 2 | 21 | 20 | 21 | 5 | 2 | 7 | 1 | 1 | 158 |
| **Hawaii** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Idaho | 419 | 506 | 680 | 905 | 884 | 693 | 764 | 764 | 714 | — | — | — | 6,329 |
| Illinois | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Indiana | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Iowa | 35,042 | 39,061 | 41,574 | 44,966 | 41,540 | 50,762 | 44,968 | 44,585 | 42,018 | 41,401 | 39,524 | 44,800 | 510,241 |
| **Kansas** | 562 | 565 | 679 | 615 | 514 | 873 | 5,687 | 7,889 | 7,865 | 10,455 | 13,730 | — | 49,434 |
| **Kentucky** | 4,989 | 5,132 | 3,747 | 6,924 | 7,665 | 8,190 | 8,837 | 10,011 | 9,817 | 10,301 | 6,740 | 18,293 | 100,646 |
| **Louisiana** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Maine** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Maryland | 4 | 10 | 7 | 4 | — | 7 | — | 16 | 6 | 6 | 8 | 6 | 74 |
| Massachusetts | 19 | 19 | 9 | 9 | — | — | — | — | — | — | — | — | 56 |
| Michigan | 27,091 | 24,763 | 28,765 | 47,935 | 64,206 | 68,160 | 69,247 | 63,614 | 43,312 | 40,573 | 42,193 | 46,132 | 565,991 |
| Minnesota | 434 | 103 | 141 | 494 | 760 | 194 | 201 | 161 | 196 | 307 | 339 | — | 3,330 |
| **Mississippi** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Missouri** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Montana** | 925 | 1,219 | 1,080 | 1,013 | 1,115 | 1,238 | 1,492 | 952 | 629 | 642 | — | — | 10,305 |
| **Nebraska** | 11,338 | 11,063 | 13,362 | 12,522 | 14,199 | 16,010 | 14,779 | 17,867 | 18,531 | 17,430 | 17,307 | 18,937 | 183,345 |
| Nevada | 61 | 36 | 54 | 60 | 72 | — | — | — | — | — | — | — | 283 |
| New Hampshire | — | — | — | — | — | — | — | — | — | — | — | — | — |
| New Jersey | — | — | — | — | — | — | — | — | — | — | — | — | — |
| New Mexico | 13 | 31 | 601 | 587 | 673 | 1,945 | 2,035 | 3,610 | 3,696 | 3,714 | 2,792 | — | 19,697 |
| **New York** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **North Carolina** | 367 | 311 | 347 | 442 | 282 | 245 | 138 | 107 | 42 | 181 | 178 | 272 | 2,912 |
| **North Dakota** | 105 | 531 | 383 | 320 | 331 | 457 | 352 | 364 | 334 | 118 | 655 | 490 | 4,440 |
| **Ohio** | 40,549 | 36,094 | 50,231 | 49,544 | 48,765 | 66,774 | 26,838 | 32,564 | 40,776 | 39,656 | — | — | 431,791 |
| Oklahoma | 27,862 | 23,203 | 1,171 | 60 | — | 3,958 | 3,945 | 4,274 | 3,690 | 2,241 | 2,027 | 3,273 | 75,704 |
| Oregon | — | — | — | 708 | 227 | 61 | 96 | 81 | 66 | — | 47 | 28 | 1,314 |
| Pennsylvania | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Rhode Island | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **South Carolina** | 161 | 227 | 188 | 82 | 116 | 121 | 46 | 24 | 5 | 14 | 20 | 14 | 1,018 |
| **South Dakota** | 1,676 | 1,767 | 2,291 | 1,856 | 2,593 | 2,942 | 3,178 | 3,259 | 3,021 | 2,993 | 2,590 | 3,215 | 31,381 |
| **Tennessee** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Texas** | 21,327 | 25,423 | 40,522 | 46,102 | 51,026 | 42,249 | 31,376 | 17,846 | 2,140 | 1,412 | 1,274 | 1,394 | 282,091 |
| Utah | 32 | 461 | 1,577 | 3,104 | 4,712 | 4,324 | 5,452 | 6,504 | — | — | 833 | 2,165 | 29,164 |
| Vermont | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Virginia | 3,594 | 2,457 | 4,849 | 3,702 | 3,993 | 3,126 | 5,185 | 3,394 | 3,528 | 3,391 | 4,073 | 4,921 | 46,213 |
| Washington | 673 | 1,078 | 1,076 | 545 | 856 | 810 | 525 | 543 | 457 | 259 | 324 | 797 | 7,943 |
| **West Virginia** | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Wisconsin** | 58 | 187 | 74 | 109 | 39 | 61 | 198 | 117 | 33 | 26 | 94 | — | 1,006 |
| **Wyoming** | 8 | 12 | 11 | 13 | 13 | 16 | 25 | 26 | 22 | 19 | 13 | — | 180 |
| **Total** | 249,583 | 235,682 | 270,583 | 288,701 | 322,050 | 358,596 | 316,498 | 305,496 | 255,186 | 250,951 | 220,965 | 230,049 | 3,304,350 |

Source: Federal Highway Administration, Monthly Gasoline Reports, 1983

# Diesel Sales for Highway Use

**Diesel sales for motor vehicles flattened out in 1982, racking up only 338-million bbl., which was 0.6% below the preceding year's total of 340-million bbl.** That translates into 14.2-billion gal. in 1982 versus 14.3-billion gal. the preceding year.

Off-highway sales of diesel fuel also was down again. These sales amounted to 37.1-million bbl. in 1982, compared with 38.9-million bbl. in 1981. Off-highway consumption is farm and construction equipment and conveniences.

(Add 000 bbl.)

| Region | State | On-Highway | | | Off-Highway | | |
|---|---|---|---|---|---|---|---|
| | | 1982 | 1981 | % Change | 1982 | 1981 | % Change |
| **New England** | Connecticut | 2,698 | 2,662 | 1.4% | 251 | 380 | (33.9%) |
| | Maine | 1,564 | 1,248 | 25.3 | 243 | 176 | 38.1 |
| | Massachusetts | 4,745 | 4,419 | 7.4 | 309 | 282 | 9.6 |
| | New Hampshire | 744 | 692 | 7.5 | 170 | 113 | 50.4 |
| | Rhode Island | 679 | 590 | 15.1 | 38 | 25 | 52.0 |
| | Vermont | 352 | 753 | (53.3) | 173 | 222 | (22.1) |
| | **Total** | **10,782** | **9,664** | **11.6** | **1,184** | **1,198** | **(1.2)** |
| **Mid-Atlantic** | New Jersey | 8,093 | 7,460 | 8.5 | 519 | 562 | (7.7) |
| | New York | 8,353 | 7,227 | 15.6 | 619 | 774 | (20.0) |
| | Pennsylvania | 15,296 | 15,311 | — | 2,136 | 2,476 | (13.7) |
| | **Total** | **31,742** | **29,998** | **5.8** | **3,274** | **3,812** | **(14.1)** |
| **South Atlantic** | Delaware | 921 | 862 | 6.4 | 134 | 78 | 76.9 |
| | Dist. of Columbia | 436 | 376 | 16.0 | 9 | 10 | (1.0) |
| | Florida | 13,098 | 12,968 | 1.0 | 310 | 630 | (50.8) |
| | Georgia | 11,801 | 12,067 | (2.2) | 191 | 171 | 11.7 |
| | Maryland | 4,023 | 4,730 | (14.9) | 326 | 571 | (42.9) |
| | North Carolina | 9,789 | 9,526 | 2.8 | 296 | 370 | (20.0) |
| | South Carolina | 5,682 | 4,968 | 14.4 | 197 | 193 | 2.0 |
| | Virginia | 8,286 | 9,038 | (8.3) | 572 | 574 | — |
| | West Virginia | 2,381 | 2,833 | (15.6) | 248 | 327 | (24.2) |
| | **Total** | **56,427** | **57,368** | **(1.7)** | **2,283** | **2,924** | **(21.9)** |
| **North East Central** | Illinois | 13,744 | 15,037 | (8.6) | 842 | 826 | 1.9 |
| | Indiana | 13,821 | 13,599 | 1.6 | 393 | 575 | (31.7) |
| | Michigan | 8,181 | 8,230 | (0.6) | 362 | 481 | (24.7) |
| | Ohio | 17,092 | 16,663 | 2.6 | 3,283 | 3,195 | 2.6 |
| | Wisconsin | 7,072 | 7,230 | (2.2) | 461 | 442 | 4.3 |
| | **Total** | **59,910** | **60,759** | **(1.4)** | **5,341** | **5,519** | **(3.2)** |
| **North West Central** | Iowa | 6,525 | 6,334 | 3.0 | 479 | 314 | 52.5 |
| | Kansas | 5,100 | 5,468 | (6.7) | 269 | 331 | (18.7) |
| | Minnesota | 6,341 | 5,987(a) | 5.9 | 426 | 499 | (14.2) |
| | Missouri | 9,004 | 8,460 | 6.4 | 1,198 | 732 | 63.7 |
| | Nebraska | 4,086 | 3,438 | 18.8 | 224 | 199 | 12.6 |
| | North Dakota | 2,048 | 2,036 | (0.6) | 259 | 190 | 36.3 |
| | South Dakota | 1,900 | 1,714 | 10.9 | 102 | 97 | 5.2 |
| | **Total** | **35,004** | **33,437** | **4.7** | **2,959** | **2,362** | **25.3** |
| **East South Central** | Alabama | 6,758 | 6,782 | — | 703 | 919(a) | (23.5) |
| | Kentucky | 5,747 | 5,911 | (2.8) | 844 | 947 | (10.8) |
| | Mississippi | 5,257 | 5,298(a) | (0.8) | 693 | 991 | (30.0) |
| | Tennessee | 9,505 | 9,112 | 4.3 | 321 | 417 | (23.0) |
| | **Total** | **27,267** | **27,103** | **0.6** | **2,561** | **3,274** | **(21.8)** |
| **Southwest Central** | Arkansas | 5,512 | 5,458 | (1.0) | 877 | 733 | 19.6 |
| | Louisiana | 7,510 | 10,031 | (25.1) | 2,559 | 2,068 | 23.7 |
| | Oklahoma | 8,251 | 8,143 | 1.3 | 811 | 1,095 | (25.9) |
| | Texas | 32,692 | 31,564 | 3.6 | 7,184 | 5,465 | 31.5 |
| | **Total** | **53,965** | **55,196** | **(2.2)** | **11,431** | **9,361** | **22.1** |
| **Rockies** | Arizona | 4,581 | 5,323 | (13.9) | 276 | 379 | (27.2) |
| | Colorado | 4,211 | 3,458 | 21.8 | 595 | 655 | (9.2) |
| | Idaho | 1,718 | 1,331 | 29.0 | 233 | 639 | (63.5) |
| | Montana | 2,473 | 2,384 | 3.7 | 153 | 184 | (16.8) |
| | Nevada | 1,977 | 1,813 | 9.0 | 177 | 158 | (12.0) |
| | New Mexico | 3,512 | 5,848 | (39.9) | 489 | 1,733 | (71.8) |
| | Utah | 2,550 | 2,760 | (7.6) | 536 | 527 | 1.7 |
| | Wyoming | 2,253 | 2,271 | (0.9) | 578 | 883 | (34.5) |
| | **Total** | **23,275** | **22,690** | **2.6** | **3,037** | **5,158** | **(41.1)** |
| **Pacific Coast** | Alaska | 596 | 1,067 | (44.1) | 424 | 269 | 57.6 |
| | California | 27,679 | 28,423 | (2.6) | 3,026 | 2,960 | 2.2 |
| | Hawaii | 415 | 423 | (1.9) | 154 | 235 | (34.5) |
| | Oregon | 5,339 | 5,651 | (5.5) | 343 | 599 | 42.7 |
| | Washington | 5,579 | 5,456 | 2.3 | 1,101 | 1,180 | (6.7) |
| | **Total** | **39,012** | **39,821** | **(2.0)** | **5,046** | **5,243** | **(3.7)** |
| | **U.S. Total** | **338,006** | **340,002** | **(0.6)** | **37,118** | **38,851** | **(4.5)** |

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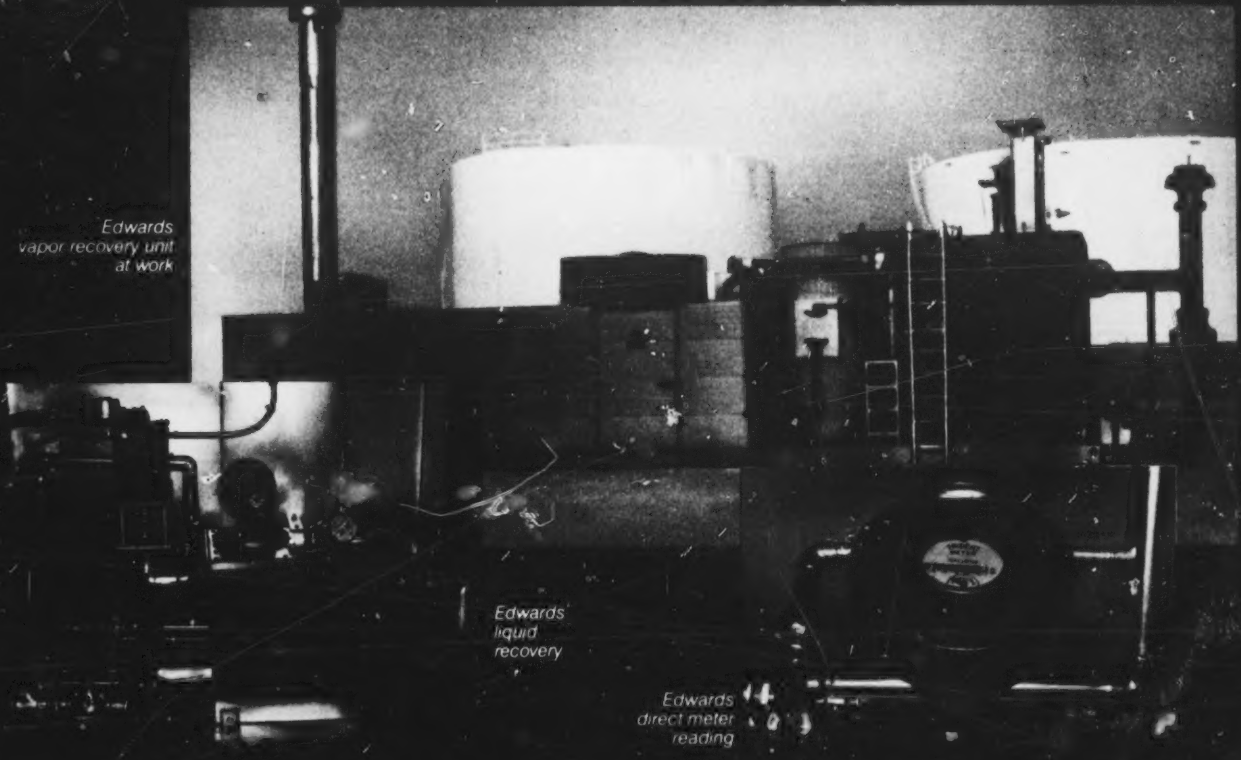
(a) Revised

Source: Deliveries of Fuel Oil and Kerosine in 1982—Petroleum Supply Annual, Energy Information Administration, June 1983

# GASOLINE VAPOR RECOVERY... PACKAGED UNITS by EDWARDS



Edwards vapor recovery unit at work

Edwards liquid recovery

Edwards direct meter reading

## ...condense vapors previously lost

### Lowest operating costs.

Low purchase price. Inexpensive installation with factory-packaged units shipped complete to job-site. Lowest maintenance and operating costs. Plus Edwards reputation for high efficiency. It all adds up to the most economical vapor recovery systems you can own.

### Safe.

Edwards unique refrigeration process offers the ultimate in efficient vapor recovery, safety and fire protection. Edwards quality recovery condenser is essentially a flame arrestor, refrigerated as low as −120 F (−84 C). No adsorption beds or regeneration required.

### Simple.

Vapors passing over cold condensing surfaces in all Edwards packaged units condense immediately as liquid, then returned to product storage for profitable reuse.

### Effective.

Only Edwards units include standard monitoring and metering devices. You actually see and measure liquids you recover in Edwards units. No theory or guesswork with Edwards vapor recovery equipment.

### Field-proven.

Since 1974, hundreds of Edwards Packaged Vapor Recovery units have been installed throughout the world. These systems are operating daily, meeting stringent U.S. Environmental Protection Agency (E.P.A.) pollution control regulations and world standards or codes.

### Easily modified.

All 24 standard Edwards packaged units can be modified for specific applications.

*For more information, write or call Ken Wieland or Rich Waldrop.*

**EDWARDS ENGINEERING CORP.**

101 Alexander Ave., Pompton Plains, N.J. 07444 • (201) 835-2800 • (800) 526-5201 • Telex 130-131

# Late Report: 1983 Motor Fuel Consumption By States

| | Taxable Gasoline (m gals.) | | Distillate No. 2 (mm gals.) | | On-Road Diesel (m gals.) | | Gasohol (m gals.) | |
|---|---|---|---|---|---|---|---|---|
| State | 1983 | 1982 | 1983 | 1982 | 1983 | 1982 | 1983 | 1982 |
| Arkansas | 193,764 | 203,215 | 260 | 282 | 14,606 | 13,604 | 0 | 0 |
| Alabama | 1,814,388 | 1,796,223 | 656 | 603 | 366,183 | 295,625 | 29,709 | 11,522 |
| Arkansas | 1,074,676 | 1,074,120 | 643 | 555 | 252,550 | 239,641 | 11,368 | 7,904 |
| Arizona | 1,441,969 | 1,329,339 | 388 | 349 | 207,444 | 180,627 | 771 | 5,095 |
| California | 11,001,262 | 10,671,521 | 2,334 | 2,429 | 1,298,095 | 1,272,322 | 480,850 | 464,004 |
| Colorado | 1,372,338 | 1,440,459 | 377 | 325 | 199,177 | 189,275 | 56,688 | 27,231 |
| Connecticut | 1,266,079 | 1,239,509 | 670 | 630 | 130,638 | 123,091 | 1,476 | 4,460 |
| Dist. of Col. | 157,235 | 159,266 | 42 | 31 | 21,370 | 19,538 | 18 | 34 |
| Delaware | 297,675 | 284,359 | 141 | 116 | 36,825 | 32,480 | 0 | 0 |
| Florida | 4,922,792 | 4,840,162 | 993 | 1,020 | 626,636 | 572,415 | 357,400 | 93,973 |
| Georgia | 3,250,691 | 3,118,669 | 655 | 678 | 606,167 | 538,023 | 156 | 147 |
| Hawaii | 306,973 | 307,439 | 204 | 212 | 21,429 | 18,104 | 0 | 368 |
| Iowa | 847,331 | 897,676 | 612 | 564 | 286,786 | 284,461 | 500,919 | 497,738 |
| Idaho | 446,858 | 441,501 | 169 | 174 | 92,068 | 87,503 | 8,747 | 4,101 |
| Illinois | 4,867,063 | 4,794,464 | 1,404 | 1,327 | 571,085 | 546,705 | n.a. | n.a. |
| Indiana | 2,375,352 | 2,389,541 | 1,306 | 1,254 | 692,812 | 602,342 | n.a. | n.a. |
| Kansas | 1,197,417 | 1,167,993 | 662 | 608 | 241,136 | 209,107 | 67,396 | 7,189 |
| Kentucky | 1,689,209 | 1,676,108 | 676 | 653 | 276,158 | 248,215 | 100,646 | 18,448 |
| Louisiana | 2,100,773 | 2,081,617 | 1,522 | 1,694 | 336,257 | 313,704 | n.a. | n.a. |
| Massachusetts | 2,233,680 | 2,204,091 | 976 | 1,029 | 210,789 | 184,936 | 56 | 286 |
| Maryland | 1,890,678 | 1,878,778 | 577 | 752 | 217,523 | 194,167 | 75 | 108 |
| Maine | 508,368 | 496,296 | 282 | 384 | 80,134 | 66,907 | 0 | 0 |
| Michigan | 3,431,827 | 3,536,576 | 987 | 870 | 402,255 | 354,477 | 566,635 | 206,794 |
| Minnesota | 1,952,740 | 1,954,191 | 735 | 684 | 312,169 | 282,383 | 4,240 | 4,653 |
| Missouri | 2,493,853 | 2,452,430 | 877 | 726 | 400,377 | 382,747 | n.a. | n.a. |
| Mississippi | 1,136,214 | 1,125,900 | 521 | 455 | 192,113 | 176,096 | n.a. | n.a. |
| Montana | 447,400 | 418,600 | 191 | 174 | 105,383 | 108,169 | 11,273 | 8,758 |
| North Carolina | 2,834,216 | 2,770,821 | 852 | 822 | 523,792 | 446,021 | 2,883 | 7,383 |
| North Dakota | 381,165 | 395,352 | 310 | 287 | 115,152 | 96,965 | 4,260 | 6,499 |
| Nebraska | 776,932 | 792,580 | 384 | 255 | 150,703 | 139,588 | 184,725 | 89,373 |
| New Hampshire | 394,755 | 383,123 | 52 | 186 | 34,517 | 31,988 | 0 | 268 |
| New Jersey | 3,238,769 | 3,170,520 | 2,228 | 2,456 | 408,270 | 373,771 | 0 | 0 |
| New Mexico | 694,769 | 722,107 | 355 | 350 | 153,286 | 178,050 | 26,589 | 188 |
| Nevada | 483,550 | 484,038 | 214 | 185 | 84,804 | 84,386 | 222 | 909 |
| New York | 5,250,934 | 5,362,896 | 1,336 | 2,425 | 409,643 | 400,780 | n.a. | n.a. |
| Ohio | 4,541,422 | 4,533,674 | 2,485 | 2,006 | 770,944 | 655,328 | 489,292 | 91,679 |
| Oklahoma | 1,630,998 | 1,609,405 | 463 | 660 | 370,660 | 362,073 | 75,706 | 155,042 |
| Oregon | 1,214,475 | 1,188,333 | 713 | 633 | 260,727 | 248,728 | 1,370 | n.a. |
| Pennsylvania | 4,285,710 | 4,253,941 | 2,050 | 2,156 | 702,547 | 656,139 | n.a. | n.a. |
| Rhode Island | 358,562 | 357,022 | 138 | 158 | 27,047 | 25,601 | 0 | 22 |
| South Carolina | 1,494,680 | 1,417,079 | 424 | 383 | 267,280 | 246,465 | 1,020 | 59,688 |
| South Dakota | 337,534 | 358,753 | 213 | 208 | 77,538 | 77,120 | 30,932 | 13,383 |
| Tennessee | 2,322,929 | 2,343,214 | 876 | 857 | 467,145 | 405,593 | n.a. | n.a. |
| Texas | 8,063,775 | 8,125,208 | 5,798 | 5,025 | 1,511,146 | 1,490,326 | 282,091 | 38,143 |
| Utah | 633,626 | 659,046 | 318 | 261 | 117,931 | 113,679 | 29,163 | n.a. |
| Virginia | 2,484,969 | 2,424,770 | 1,074 | 1,051 | 379,190 | 354,031 | 46,213 | 30,834 |
| Vermont | 240,393 | 235,634 | 71 | 126 | 16,629 | 15,745 | 0 | n.a. |
| Washington | 1,883,395 | 1,822,365 | 550 | 483 | 260,297 | 215,049 | 7,943 | 7,230 |
| Wisconsin | 1,981,669 | 1,952,337 | 736 | 777 | 330,944 | 301,754 | 1,046 | 2,717 |
| West Virginia | 968,225 | 1,001,206 | 222 | 228 | 116,484 | 100,777 | 0 | 0 |
| Wyoming | 338,442 | 355,926 | 392 | 391 | 118,176 | 108,556 | 202 | 258 |
| **Total U.S.** | **101,554,499** | **100,699,393** | **41,116** | **40,945** | **15,873,015** | **14,665,177** | **4,289,080** | **2,159,429** |

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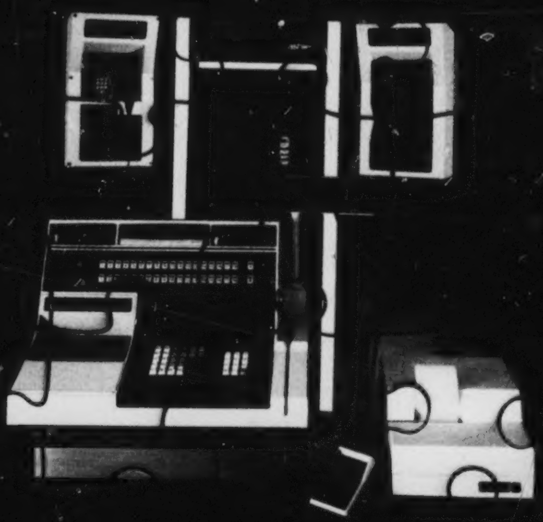
Notes: U.S. Gasohol total is estimated and includes "n.a." states, and all blended alcohol fuels qualifying for tax exemptions. "n.a." states where data are not available separately.

# Evolution

# Solution



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For more than 50 years, Sun Electric has been providing profit-building products for the automotive industry. By using this experience and listening to your needs, Sun continues this tradition by bringing you a new generation in management technology — the Suntronic Business Management System.

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For more information call Bob Gold at (312) 631-6000, or write him at One Sun Parkway, Crystal Lake, Illinois 60014.

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A Division of Sun Electric Corporation

1984 Sun Electric Corporation

**Photo above** Foreground: Station Minder System Controller with PIN Keypad, Customer Display and Journal Printer.
Background, from Left to Right: Island Minder Card Reader, Cashier Cash Accepter, Island Receipt Printer

# Average Gasoline Prices in 1983—

## (¢ per gal.)

| | | Retail Average Prices | | | | Wholesale Average Prices* | | | | Apparent Average Margins | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Regular | | Premium | | Regular | | Premium | | Regular | | Premium | |
| City | | Lead | Unld. | Lead | Unld. | Lead | Unld. | Lead | Unld. | Lead | Unld. | Lead | Unld. |
| Albuquerque, NM | F | 132.92 | 137.73 | — | 144.15 | 90.42 | 94.28 | — | 100.47 | 24.71 | 25.66 | — | 25.89 |
| | S | 110.62 | 115.98 | 128.13 | 123.78 | 89.32 | 92.85 | 96.32 | 98.37 | 3.51 | 5.34 | 14.02 | 7.62 |
| Anchorage, AK | F | 140.18 | 146.24 | 169.90 | 152.92 | 87.88 | 91.97 | 94.40 | 96.82 | 36.48 | 38.45 | — | 40.28 |
| | S | 108.59 | 118.32 | 135.80 | 140.22 | 88.02 | 92.19 | 99.50 | 96.84 | 4.75 | 10.31 | 20.48 | 27.56 |
| Atlanta, GA | F | 135.38 | 143.53 | — | 151.65 | 88.47 | 92.07 | — | 97.68 | 26.68 | 30.92 | — | 33.12 |
| | S | 108.37 | 117.46 | — | 132.35 | 88.08 | 91.46 | — | 96.65 | 1.10 | 6.46 | — | 15.59 |
| Bakersfield, CA | F | 137.17 | 146.27 | 148.90 | 154.03 | 87.23 | 91.78 | 99.48 | 96.79 | 25.40 | 29.43 | 24.21 | 31.74 |
| | S | 111.84 | 122.44 | 132.76 | 137.83 | 86.56 | 90.84 | 95.23 | 96.72 | 2.17 | 7.89 | 13.24 | 16.53 |
| Baltimore, MD | F | 137.30 | 143.22 | — | 151.12 | 87.90 | 91.73 | — | 97.64 | 29.06 | 31.15 | — | 33.14 |
| | S | 109.35 | 115.75 | — | 132.76 | 87.83 | 91.64 | — | 97.57 | 1.18 | 3.77 | — | 14.85 |
| Billings, MT | F | 131.37 | 135.39 | — | 143.95 | 87.50 | 91.25 | — | 97.05 | 23.74 | 24.01 | — | 26.77 |
| | S | 114.26 | 118.17 | — | 127.33 | 87.23 | 90.85 | — | 96.61 | 6.90 | 7.19 | — | 10.59 |
| Birmingham, AL | F | 135.03 | 142.24 | — | 148.24 | 89.31 | 93.19 | — | 98.68 | 26.67 | 30.00 | — | 30.51 |
| | S | 112.11 | 120.73 | 131.34 | 133.70 | 88.66 | 92.26 | 95.75 | 97.72 | 4.40 | 9.42 | 16.54 | 16.93 |
| Boise, ID | F | 135.03 | 140.26 | 147.11 | 149.49 | 90.43 | 94.20 | 97.94 | 99.08 | 22.69 | 24.15 | 27.26 | 28.50 |
| | S | 116.39 | 121.94 | 128.64 | 135.98 | 89.50 | 93.06 | 97.87 | 99.08 | 4.98 | 6.97 | 8.86 | 14.99 |
| Boston, MA | F | 118.62 | 125.98 | — | 138.13 | 91.24 | 95.22 | — | 101.18 | 8.79 | 12.17 | — | 18.36 |
| | S | 111.29 | 118.28 | — | 132.89 | 90.36 | 94.27 | — | 100.00 | 2.34 | 5.42 | — | 14.30 |
| Burlington, VT | F | 130.18 | 135.00 | — | 146.83 | 95.79 | 99.79 | — | 106.12 | 15.51 | 16.33 | — | 21.83 |
| | S | 121.31 | 126.15 | — | 136.88 | 95.20 | 99.14 | — | 105.94 | 7.23 | 8.13 | — | 12.06 |
| Charleston, SC | F | 139.69 | 146.06 | — | 150.87 | 90.86 | 94.47 | — | 100.77 | 28.01 | 30.77 | — | 29.28 |
| | S | 112.81 | 120.48 | — | 132.36 | 88.54 | 92.00 | — | 97.32 | 3.45 | 7.66 | — | 14.22 |
| Charlotte, NC | F | 137.28 | 142.67 | 142.17 | 149.97 | 89.84 | 93.74 | 96.47 | 99.70 | 27.60 | 29.09 | 25.86 | 30.43 |
| | S | 110.80 | 118.40 | — | 130.68 | 88.55 | 92.10 | — | 97.55 | 2.41 | 6.46 | — | 13.29 |
| Cheyenne, WY | F | 125.90 | 130.66 | — | 146.36 | 91.23 | 95.01 | — | 98.31 | 18.71 | 19.69 | — | 32.09 |
| | S | 110.77 | 115.63 | — | — | 88.75 | 92.26 | — | — | 6.06 | 7.41 | — | — |
| Chicago, IL | F | 141.74 | 148.27 | 138.46 | 159.14 | 90.83 | 94.68 | 92.77 | 100.79 | 23.72 | 26.02 | 18.70 | 30.14 |
| | S | 116.67 | 123.41 | 140.70 | 141.29 | 90.03 | 93.73 | 92.09 | 99.90 | .94 | 3.58 | 21.49 | 14.23 |
| Cincinnati, OH | F | 130.72 | 136.54 | — | 146.56 | 90.43 | 94.21 | — | 100.23 | 20.49 | 22.53 | — | 26.53 |
| | S | 111.13 | 117.58 | — | 130.12 | 89.62 | 93.24 | — | 99.33 | 1.71 | 4.54 | — | 10.99 |
| Dallas, TX | F | 136.19 | 141.53 | — | 147.86 | 88.46 | 92.42 | — | 98.21 | 34.93 | 36.31 | — | 36.85 |
| | S | 103.08 | 109.89 | — | 122.91 | 87.89 | 91.62 | — | 97.18 | 2.39 | 5.47 | — | 12.93 |
| Denver, CO | F | 136.37 | 142.81 | 145.80 | 152.50 | 89.36 | 92.82 | 96.94 | 99.00 | 28.62 | 31.60 | 30.47 | 35.11 |
| | S | 108.78 | 117.92 | 135.09 | 129.53 | 88.03 | 91.21 | 98.92 | 97.49 | 2.36 | 8.32 | 17.78 | 13.35 |
| Des Moines, IA | F | 138.29 | 144.64 | — | 138.44 | 92.80 | 96.47 | — | 64.67 | 24.60 | 27.28 | — | 52.88 |
| | S | 114.58 | 122.98 | — | 122.25 | 90.20 | 94.10 | — | 96.85 | 3.49 | 7.99 | — | 4.51 |
| Detroit, MI | F | 145.01 | 150.91 | — | 160.81 | 90.69 | 94.55 | — | 100.73 | 28.78 | 30.60 | — | 33.94 |
| | S | 115.28 | 122.01 | — | 138.34 | 89.89 | 93.60 | — | 99.52 | 1.00 | 3.76 | — | 13.54 |
| El Paso, TX | F | 123.05 | 128.15 | — | 136.28 | 89.33 | 93.24 | — | 98.33 | 20.92 | 22.11 | — | 25.15 |
| | S | 108.17 | 114.04 | 115.90 | 119.89 | 88.10 | 91.75 | 93.80 | 96.20 | 7.27 | 9.49 | 9.30 | 10.89 |
| Fargo, ND | F | 148.22 | 152.75 | — | 160.41 | 93.78 | 97.68 | — | 104.46 | 35.85 | 36.48 | — | 37.36 |
| | S | 122.24 | 126.44 | — | 132.13 | 92.34 | 95.83 | — | 102.49 | 11.31 | 12.02 | — | 11.05 |
| Fresno, CA | F | 138.74 | 145.55 | 147.24 | 154.43 | 88.21 | 92.36 | 99.55 | 98.00 | 25.90 | 28.17 | 22.58 | 30.91 |
| | S | 114.37 | 122.56 | 134.98 | 136.10 | 87.62 | 91.76 | 97.84 | 97.53 | 3.50 | 7.08 | 12.72 | 14.09 |
| Honolulu, HI | F | 148.61 | 152.98 | 158.16 | 163.20 | 92.41 | 96.18 | 100.33 | 102.07 | 27.73 | 28.17 | 29.00 | 32.10 |
| | S | 120.97 | 133.75 | 145.83 | 147.49 | 91.76 | 95.51 | 99.87 | 99.53 | 1.81 | 10.35 | 17.60 | 19.54 |
| Houston, TX | F | 132.86 | 138.09 | 127.11 | 145.02 | 88.03 | 92.01 | 93.35 | 97.71 | 32.03 | 33.28 | 20.96 | 34.51 |
| | S | 101.68 | 110.66 | — | 124.68 | 86.72 | 90.38 | — | 96.37 | 2.16 | 7.48 | — | 15.51 |
| Indianapolis, IN | F | 143.72 | 149.09 | — | 156.28 | 90.24 | 93.93 | — | 99.61 | 28.96 | 30.40 | — | 31.59 |
| | S | 114.48 | 120.58 | 133.96 | 137.20 | 89.80 | 93.38 | 92.31 | 99.25 | 1.47 | 3.72 | 17.57 | 13.72 |
| Jackson, MS | F | 138.32 | 144.30 | 151.64 | 151.54 | 88.75 | 92.58 | 95.73 | 98.27 | 26.09 | 27.96 | 31.80 | 29.16 |
| | S | 115.32 | 123.12 | — | 133.86 | 87.85 | 91.36 | — | 96.75 | 5.09 | 9.01 | — | 13.85 |
| Jacksonville, FL | F | 132.26 | 139.64 | — | 147.18 | 90.96 | 94.70 | — | 100.58 | 22.56 | 26.20 | — | 27.86 |
| | S | 109.91 | 117.89 | — | 129.97 | 89.94 | 93.48 | — | 98.91 | 1.23 | 5.67 | — | 12.32 |
| Kansas City, MO | F | 124.26 | 129.74 | — | 140.60 | 89.35 | 92.90 | — | 99.10 | 20.08 | 22.01 | — | 26.67 |
| | S | 107.00 | 113.36 | — | 122.96 | 88.18 | 91.53 | — | 96.56 | 3.99 | 7.00 | — | 11.57 |
| Las Vegas, NV | F | 139.54 | 146.36 | 152.20 | 153.05 | 87.99 | 92.54 | 100.48 | 97.72 | 29.46 | 31.73 | 29.63 | 33.24 |
| | S | 110.77 | 120.94 | 138.83 | 136.13 | 87.65 | 92.01 | 98.19 | 97.58 | 1.03 | 6.84 | 18.55 | 16.46 |
| Little Rock, AR | F | 134.24 | 140.39 | — | 145.40 | 87.91 | 91.62 | — | 98.32 | 28.98 | 31.42 | — | 29.73 |
| | S | 107.47 | 116.17 | — | 127.01 | 87.17 | 90.58 | — | 96.92 | 2.95 | 8.24 | — | [illegible] |
| Long Island, NY | F | 124.31 | 131.96 | — | 144.86 | 91.24 | 95.17 | — | 101.33 | 9.45 | 12.65 | — | [illegible] |
| | S | 117.74 | 125.09 | — | 138.76 | 91.02 | 94.92 | — | 100.87 | 3.54 | 6.49 | — | [illegible] |
| Los Angeles, CA | F | 134.14 | 141.43 | 144.99 | 150.18 | 85.64 | 90.15 | 97.90 | 95.43 | 23.71 | 26.06 | 21.65 | 29.00 |
| | S | 109.71 | 118.03 | 133.59 | 134.11 | 85.45 | 89.71 | 95.10 | 95.34 | .93 | 4.49 | 13.73 | 13.98 |
| Louisville, KY | F | 132.25 | 137.49 | — | 144.57 | 90.13 | 93.82 | — | 99.29 | 24.30 | 25.85 | — | 27.46 |
| | S | 108.77 | 116.02 | — | 126.75 | 89.14 | 92.60 | — | 97.76 | 1.81 | 5.60 | — | 11.17 |

# Retail, Wholesale and Apparent Margins

## (¢ per gal.)

| | | Retail Average Prices | | | | Wholesale Average Prices* | | | | Apparent Average Margins | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Regular | | Premium | | Regular | | Premium | | Regular | | Premium | |
| City | | Lead | Unld. | Lead | Unld. | Lead | Unld. | Lead | Unld. | Lead | Unld. | Lead | Unld. |
| Manchester, NH | F | 128.95 | 135.04 | — | 144.78 | 90.81 | 94.80 | — | 100.26 | 16.23 | 18.33 | — | 22.61 |
| | S | 114.52 | 121.20 | — | 132.22 | 90.51 | 94.49 | — | 100.00 | 2.10 | 4.80 | — | 10.31 |
| Memphis, TN | F | 134.99 | 142.24 | — | 147.54 | 89.39 | 93.08 | — | 98.96 | 27.75 | 31.31 | — | 30.73 |
| | S | 106.86 | 117.21 | — | 131.13 | 88.39 | 91.85 | — | 97.43 | .62 | 7.51 | — | 15.85 |
| Miami, FL | F | 134.69 | 142.63 | — | 150.27 | 89.91 | 93.76 | — | 99.73 | 26.50 | 30.59 | — | 32.26 |
| | S | 108.48 | 117.77 | — | 129.04 | 89.56 | 93.28 | — | 99.24 | .64 | 6.21 | — | 11.52 |
| Milwaukee, WI | F | 136.09 | 142.60 | — | 150.91 | 90.63 | 94.76 | — | 100.52 | 23.71 | 26.09 | — | 28.64 |
| | S | 112.72 | 119.64 | — | 131.27 | 89.57 | 93.35 | — | 98.84 | 1.40 | 4.54 | — | 10.68 |
| Minneapolis, MN | F | 146.60 | 152.36 | — | 163.20 | 91.45 | 95.20 | — | 101.72 | 32.17 | 34.18 | — | 38.50 |
| | S | 115.03 | 121.21 | 144.41 | 130.20 | 89.93 | 93.36 | 98.55 | 98.31 | 2.12 | 4.87 | 22.88 | 8.91 |
| New Haven, CT | F | 126.76 | 134.12 | — | 144.82 | 92.51 | 96.45 | — | 102.15 | 14.10 | 17.52 | — | 22.52 |
| | S | 114.03 | 121.77 | — | 135.96 | 92.43 | 96.32 | — | 101.83 | 1.45 | 5.30 | — | 13.98 |
| New Orleans, LA | F | 138.90 | 144.80 | — | 152.02 | 88.98 | 92.97 | — | 99.00 | 34.08 | 35.99 | — | 37.18 |
| | S | 106.46 | 113.67 | — | 130.97 | 88.07 | 91.83 | — | 97.63 | 2.55 | 6.00 | — | 17.50 |
| Newark, NJ | F | 111.56 | 119.20 | — | 131.97 | 89.52 | 93.38 | — | 99.21 | 6.20 | 9.98 | — | 16.92 |
| | S | 107.63 | 115.15 | — | 127.65 | 89.70 | 93.41 | — | 98.59 | 2.09 | 5.91 | — | 13.22 |
| Norfolk, VA | F | 139.27 | 145.08 | — | 152.76 | 89.54 | 93.55 | — | 99.16 | 28.27 | 30.07 | — | 32.14 |
| | S | 113.31 | 119.58 | — | 134.46 | 88.89 | 92.59 | — | 98.18 | 2.96 | 5.53 | — | 14.82 |
| Omaha, NE | F | 137.93 | 145.61 | — | 153.09 | 90.83 | 94.83 | — | 100.00 | 24.59 | 28.27 | — | 30.58 |
| | S | 113.93 | 121.57 | — | 126.76 | 89.71 | 93.40 | — | 97.58 | 1.71 | 5.66 | — | 6.67 |
| Philadelphia, PA | F | 122.92 | 128.73 | — | 141.25 | 90.04 | 94.00 | — | 100.11 | 13.60 | 15.45 | — | 21.86 |
| | S | 109.01 | 114.46 | — | 132.46 | 90.26 | 94.26 | — | 100.21 | -.53 | .92 | — | 12.97 |
| Phoenix, AZ | F | 131.22 | 137.29 | — | 144.08 | 82.67 | 86.65 | — | 92.37 | 29.84 | 31.93 | — | 33.00 |
| | S | 102.86 | 111.98 | 129.26 | 126.91 | 83.53 | 87.42 | 91.34 | 92.86 | .62 | 5.85 | 19.21 | 15.34 |
| Pittsburgh, PA | F | 121.37 | 127.47 | — | 139.02 | 91.73 | 95.88 | — | 101.86 | 10.36 | 12.31 | — | 17.88 |
| | S | 110.91 | 117.16 | — | 131.47 | 92.02 | 96.14 | — | 101.98 | -.39 | 1.74 | — | 10.21 |
| Portland, ME | F | 122.25 | 128.53 | — | 140.26 | 90.97 | 94.79 | — | 100.71 | 10.45 | 12.91 | — | 18.72 |
| | S | 114.45 | 120.33 | — | 133.22 | 89.57 | 93.36 | — | 99.62 | 4.05 | 6.14 | — | 12.77 |
| Portland, OR | F | 127.30 | 134.66 | 143.18 | 145.56 | 85.17 | 89.35 | 97.12 | 94.89 | 23.26 | 26.44 | 27.19 | 31.80 |
| | S | 105.66 | 115.84 | 133.13 | 132.30 | 85.13 | 89.18 | 96.41 | 94.63 | 1.66 | 7.79 | 17.85 | 18.80 |
| Providence, RI | F | 126.99 | 133.14 | — | 144.49 | 90.60 | 94.58 | — | 100.40 | 16.02 | 18.19 | — | 23.72 |
| | S | 114.11 | 120.67 | — | 134.71 | 89.32 | 93.30 | — | 99.18 | 4.42 | 7.00 | — | 15.16 |
| Reno, NV | F | 141.43 | 149.54 | 158.01 | 158.85 | 89.96 | 94.70 | 102.56 | 99.80 | 27.62 | 30.99 | 31.60 | 35.20 |
| | S | 113.03 | 122.92 | 141.77 | 138.61 | 90.22 | 94.55 | 99.48 | 100.26 | -1.04 | 4.52 | 18.44 | 14.50 |
| Rochester, NY | F | 126.86 | 132.72 | — | 144.36 | 92.14 | 96.07 | — | 102.09 | 11.18 | 12.73 | — | 17.59 |
| | S | 120.23 | 126.29 | — | 138.35 | 91.53 | 95.46 | — | 100.82 | 5.59 | 7.33 | — | 13.24 |
| Sacramento, CA | F | 139.76 | 146.36 | 148.18 | 154.21 | 87.66 | 91.77 | 99.23 | 97.39 | 27.41 | 29.53 | 23.78 | 31.31 |
| | S | 111.65 | 120.37 | 130.79 | 134.55 | 86.52 | 90.66 | 93.18 | 97.04 | 2.03 | 6.12 | 13.43 | 13.11 |
| Salt Lake City, UT | F | 128.25 | 133.09 | 139.08 | 144.68 | 88.73 | 92.31 | 98.03 | 97.36 | 20.68 | 21.94 | 22.21 | 28.48 |
| | S | 111.70 | 116.03 | 125.78 | 126.59 | 86.99 | 90.31 | 94.61 | 96.79 | 5.87 | 6.88 | 12.33 | 10.96 |
| San Diego, CA | F | 137.41 | 143.97 | 149.35 | 152.33 | 86.81 | 91.22 | 99.17 | 96.56 | 26.04 | 27.82 | 24.95 | 30.37 |
| | S | 111.72 | 119.39 | 134.00 | 136.01 | 86.30 | 90.49 | 94.66 | 96.51 | 2.32 | 5.36 | 14.98 | 15.02 |
| San Francisco, CA | F | 138.59 | 146.07 | 149.28 | 155.29 | 87.21 | 91.42 | 98.00 | 97.01 | 26.21 | 29.03 | 25.47 | 32.10 |
| | S | 112.23 | 122.17 | 135.77 | 137.70 | 86.82 | 90.95 | 94.52 | 96.92 | 1.84 | 7.05 | 16.26 | 15.67 |
| Seattle, WA | F | 135.51 | 140.88 | 147.10 | 149.89 | 84.78 | 89.16 | 96.91 | 94.54 | 28.85 | 29.84 | 28.31 | 33.47 |
| | S | 108.17 | 115.81 | 132.80 | 132.06 | 84.61 | 88.86 | 95.82 | 94.35 | 1.68 | 5.07 | 15.10 | 15.83 |
| Sioux Falls, SD | F | 141.00 | 146.73 | — | 153.97 | 92.27 | 96.12 | — | 102.75 | 27.80 | 29.68 | — | 30.29 |
| | S | 118.65 | 123.56 | — | 130.62 | 90.80 | 94.34 | — | 102.10 | 6.92 | 8.29 | — | 7.59 |
| Spokane, WA | F | 132.55 | 137.75 | 143.19 | 146.92 | 87.15 | 90.52 | 90.23 | 96.42 | 23.52 | 25.35 | 31.08 | 28.62 |
| | S | 112.57 | 118.73 | 122.73 | 127.47 | 86.76 | 90.19 | 92.08 | 95.92 | 3.93 | 6.66 | 8.77 | 9.67 |
| St. Louis, MO | F | 130.04 | 135.80 | — | 144.82 | 90.34 | 94.21 | — | 99.94 | 24.87 | 26.76 | — | 30.05 |
| | S | 105.58 | 112.48 | — | 126.85 | 89.47 | 93.15 | — | 98.65 | 1.28 | 4.50 | — | 13.37 |
| Stockton, CA | F | 136.66 | 144.62 | 148.00 | 152.22 | 86.89 | 91.06 | 97.16 | 97.09 | 25.25 | 28.59 | 25.68 | 29.73 |
| | S | 110.18 | 120.06 | 130.84 | 131.86 | 86.14 | 90.22 | 93.44 | 96.29 | 1.02 | 6.26 | 13.21 | 11.53 |
| Tampa/St. Pete, FL | F | 134.68 | 141.67 | — | 149.54 | 89.93 | 93.71 | — | 100.01 | 26.84 | 30.05 | — | 31.62 |
| | S | 108.12 | 117.27 | — | 131.25 | 89.06 | 92.60 | — | 98.41 | 1.15 | 6.76 | — | 14.93 |
| Tucson, AZ | F | 126.32 | 132.78 | 119.71 | 143.23 | 83.01 | 87.00 | 90.59 | 92.17 | 24.60 | 27.07 | 10.41 | 32.35 |
| | S | 103.98 | 113.02 | 124.60 | 126.92 | 84.03 | 87.80 | 90.59 | 92.57 | 1.24 | 6.51 | 15.30 | 15.64 |
| Tulsa, OK | F | 132.25 | 137.21 | — | 139.73 | 89.80 | 93.50 | — | 98.85 | 27.98 | 29.24 | — | 26.41 |
| | S | 105.63 | 111.36 | — | 116.26 | 87.96 | 91.30 | — | 95.87 | 3.20 | 5.59 | — | 5.92 |
| Washington, DC | F | 139.05 | 145.33 | — | 153.61 | 88.44 | 92.38 | — | 98.61 | 28.77 | 31.11 | — | 33.16 |
| | S | 111.83 | 118.54 | — | 133.87 | 88.23 | 92.08 | — | 98.14 | 1.76 | 4.62 | — | 13.89 |
| Wilmington, DE | F | 126.10 | 131.36 | — | 140.72 | 86.60 | 90.58 | — | 96.29 | 20.60 | 21.88 | — | 25.53 |
| | S | 107.06 | 113.41 | — | 126.58 | 86.53 | 90.50 | — | 96.23 | 1.63 | 4.01 | — | 11.45 |

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Note: F = Full Service, S = Self Service and Mini-Service. There is no self-service in Oregon or New Jersey. Retail includes all taxes and combines cash and credit prices.

***Wholesale average** prices combine (1) average dealer buying prices (dealer tankwagon, extax) and (2) average rack prices plus an 1.0 cent a gallon average haul. Although there is no **full-service or self-service** distinction at wholesale, average wholesale prices may be different because the brand mix of each set is different.

# Gasoline Prices by Grades and Months (a)

(U.S. averages, retail, including taxes, in ¢ per gal.)

| | | Leaded Regular | Unleaded Regular | Leaded Premium | Average for All Types |
|---|---|---|---|---|---|
| 1983 | January | 114.6 | 122.8 | 135.3 | 121.3 |
| | February | 109.9 | 118.7 | 131.8 | 117.0 |
| | March | 106.4 | 115.1 | 127.4 | 113.5 |
| | April | 113.1 | 121.5 | 132.1 | 119.8 |
| | May | 117.7 | 125.9 | 137.6 | 124.3 |
| | June | 119.7 | 127.7 | 142.9 | 126.1 |
| | July | 120.7 | 128.8 | 144.6 | 127.2 |
| | August | 120.3 | 128.5 | 143.7 | 126.9 |
| | September | 118.9 | 127.4 | 140.5 | 125.7 |
| | October | 117.2 | 125.5 | 137.2 | 123.9 |
| | November | 115.6 | 124.1 | 135.6 | 122.4 |
| | December | 114.6 | 123.1 | 138.1 | 121.5 |
| | **Average** | **115.7** | **124.1** | **137.2** | **122.5** |
| 1982 | January | 128.5 | 135.8 | 145.6 | 134.1 |
| | February | 126.0 | 133.4 | 143.8 | 131.8 |
| | March | 120.6 | 128.4 | 140.7 | 126.8 |
| | April | 114.8 | 122.5 | 136.8 | 121.0 |
| | May | 116.6 | 123.7 | 137.9 | 122.4 |
| | June | 124.2 | 130.9 | 140.8 | 129.6 |
| | July | 126.3 | 133.1 | 145.0 | 131.8 |
| | August | 125.4 | 132.3 | 145.8 | 131.0 |
| | September | 123.6 | 130.8 | 144.1 | 129.5 |
| | October | 121.9 | 129.5 | 141.3 | 128.0 |
| | November | 120.7 | 128.3 | 141.2 | 126.8 |
| | December | 118.1 | 126.0 | 137.1 | 124.4 |
| | **Average** | **122.2** | **129.6** | **141.7** | **128.1** |
| 1981 | January | 123.8 | 129.8 | 133.8 | 126.9 |
| | February | 132.1 | 138.2 | 141.0 | 135.3 |
| | March | 135.2 | 141.7 | 144.9 | 138.8 |
| | April | 134.4 | 141.2 | 145.1 | 138.1 |
| | May | 133.3 | 140.0 | 144.7 | 137.0 |
| | June | 132.4 | 139.1 | 144.6 | 136.2 |
| | July | 131.5 | 138.2 | 144.6 | 135.3 |
| | August | 131.0 | 137.6 | 144.4 | 134.8 |
| | September | 130.5 | 137.6 | 145.6 | 135.8 |
| | October | 129.9 | 137.1 | 145.7 | 135.3 |
| | November | 129.7 | 136.9 | 146.2 | 135.1 |
| | December | 129.3 | 136.5 | 146.0 | 134.8 |
| | **Average** | **131.1** | **137.8** | **143.9** | **135.3** |
| **Average** | 1980 | 119.1 | 124.5 | 128.1 | 122.1 |
| | 1979 | 85.7 | 90.3 | 92.2 | 88.2 |
| | 1978 | 62.6 | 67.0 | 69.4 | 65.2 |
| | 1977 | 62.2 | 65.6 | 67.4 | NA |
| | 1976 | 59.0 | 61.4 | 63.6 | NA |
| | 1975 | 56.7 | NA | 60.9 | NA |
| | 1974 | 53.2 | NA | 56.9 | NA |

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(a) Department of Energy discontinued in 1980 its series breaking out full-service and self-service prices, see Factbook '81 for last reports of this type; also, beginning in September 1981, Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. In the fourth column above, gasohol is now included and unleaded premium is weighted more heavily.

Source: Department of Energy, Monthly Energy Review, March 1984.

# Wholesale Price Trends Through 1983

| | Refinery products in eight refinery markets representing total U.S. | | | | | | Crude | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Average 4 products | | | |
| Year | Motor gasoline ¢ gal. | Kero-sine ¢ gal. | Light fuel ¢ gal. | Heavy fuel ¢ gal. | ¢ gal. | $/bbl. | 8 areas $/bbl. | Products vs. crude $/bbl. |
| 1983 (a) | 83.75 | 85.12 | 80.15 | 57.30 | 75.33 | 31.64 | 26.130 | 5.51 |
| 1982 | 92.90 | 97.18 | 91.95 | 57.80 | 82.44 | 34.62 | 28.520 | 6.10 |
| 1981 | 101.63 | 101.03 | 97.20 | 61.17 | 88.75 | 37.28 | 31.770 | 5.51 |
| 1980 | 87.40 | 80.26 | 78.21 | 44.43 | 72.77 | 30.56 | 21.190 | 9.38 |
| 1979 | 56.84 | 56.50 | 54.47 | 33.63 | 49.50 | 20.79 | 12.640 | 8.15 |
| 1978 | 39.22 | 37.23 | 35.66 | 23.00 | 33.72 | 14.16 | 9.000 | 5.16 |
| 1977 | 36.99 | 35.81 | 34.41 | 25.87 | 32.21 | 13.95 | 8.570 | 5.38 |
| 1976 | 33.82 | 31.67 | 30.38 | 21.66 | 29.55 | 12.41 | 8.141 | 4.26 |
| 1975 | 30.27 | 27.41 | 26.09 | 22.03 | 27.03 | 11.35 | 7.560 | 3.79 |
| 1973 | 14.72 | 14.08 | 12.61 | 8.45 | 12.49 | 5.25 | 3.885 | 1.365 |
| 1971 | 12.70 | 12.90 | 10.75 | 7.76 | 10.94 | 4.59 | 3.385 | 1.205 |
| 1970 | 12.33 | 12.43 | 10.45 | 6.14 | 10.20 | 4.28 | 3.177 | 1.103 |
| 1965 | 11.52 | 11.28 | 9.04 | 4.81 | 9.12 | 3.83 | 2.864 | 0.966 |

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(a) Preliminary

Source: Independent Petroleum Assn. of America. Product figures reflect trends in prices but not the actual sales realizations for producers or refiners.

# Supplier Gasoline Prices, by Type of Seller

| | Major Refiners | | | Other Refiners and Gas Plant Operators | | | Average | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sales to End-Users | | | Sales to End-Users | | | Sales to End-Users | | |
| Year Months | Through Company Outlets | Other End-Users | Sales for Resale | Through Company Outlets | Other End-Users | Sales for Resale | Through Company Outlets | Other End-Users | Sales for Resale |
| **1978 Average** | **49.4** | **46.2** | **43.8** | **48.2** | **45.8** | **42.1** | **48.9** | **46.1** | **43.4** |
| **1979 Average** | **72.8** | **68.0** | **64.3** | **71.0** | **67.5** | **61.8** | **72.1** | **67.9** | **63.7** |
| **1980 Average** | **105.6** | **98.7** | **95.1** | **103.0** | **97.8** | **91.3** | **104.6** | **98.5** | **94.1** |
| **1981 Average** | **117.0** | **109.4** | **107.5** | **114.2** | **108.4** | **103.2** | **115.9** | **109.2** | **106.4** |
| **1982** | | | | | | | | | |
| January | 113.1 | 105.7 | 103.3 | 110.4 | 104.8 | 99.2 | 112.0 | 105.5 | 102.3 |
| February | 110.8 | 103.6 | 99.9 | 106.2 | 102.7 | 95.9 | 109.8 | 103.4 | 98.9 |
| March | 104.3 | 97.4 | 93.6 | 101.8 | 96.6 | 89.8 | 103.3 | 97.3 | 92.6 |
| April | 100.3 | 93.8 | 90.5 | 97.9 | 93.0 | 86.8 | 99.4 | 93.6 | 89.6 |
| May | 104.2 | 97.4 | 95.1 | 101.7 | 96.6 | 91.2 | 103.2 | 97.3 | 94.1 |
| June | 111.5 | 104.2 | 101.6 | 108.8 | 103.3 | 97.5 | 110.5 | 104.1 | 100.5 |
| July | 112.6 | 105.2 | 102.8 | 109.9 | 104.4 | 98.6 | 111.6 | 105.1 | 101.7 |
| August | 111.2 | 103.9 | 102.0 | 108.5 | 103.0 | 97.9 | 110.1 | 103.7 | 101.0 |
| September | 109.9 | 102.7 | 100.6 | 107.3 | 101.9 | 96.6 | 108.9 | 102.6 | 99.6 |
| October | 108.6 | 101.5 | 99.4 | 106.0 | 100.6 | 95.4 | 107.6 | 101.3 | 98.4 |
| November | 107.3 | 100.2 | 97.4 | 104.7 | 99.4 | 93.5 | 106.3 | 100.1 | 96.4 |
| December | 104.4 | 97.5 | 93.4 | 101.8 | 96.7 | 89.6 | 103.4 | 97.4 | 92.4 |
| **1982 Average** | **106.2** | **101.1** | **98.3** | **105.6** | **100.2** | **94.3** | **107.2** | **100.9** | **97.3** |
| **1983** | | | | | | | | | |
| January | 99.0 | 93.2 | 89.6 | 96.3 | 90.9 | 85.5 | 98.0 | 92.9 | 88.5 |
| February | 94.4 | 88.5 | 86.2 | 91.9 | 86.9 | 83.0 | 93.4 | 88.3 | 85.4 |
| March | 91.7 | 84.8 | 83.7 | 90.0 | 86.4 | 80.5 | 91.1 | 84.9 | 82.9 |
| April | 94.9 | 88.8 | 87.0 | 97.7 | 87.8 | 84.8 | 95.9 | 88.7 | 86.5 |
| May | 98.5 | 91.4 | 90.9 | 96.9 | 89.7 | 88.6 | 98.0 | 91.3 | 90.4 |
| June | 99.6 | 93.4 | 92.1 | 97.6 | 92.2 | 89.3 | 98.9 | 93.2 | 91.5 |
| July | 100.2 | 95.1 | 93.1 | 98.2 | 93.2 | 89.6 | 99.5 | 94.9 | 92.3 |
| August | 99.8 | 94.2 | 92.3 | 98.1 | 93.6 | 88.9 | 99.2 | 94.1 | 91.5 |
| September | 98.8 | 91.8 | 91.0 | 96.5 | 90.5 | 87.6 | 98.0 | 91.7 | 90.2 |
| October | 97.0 | 90.8 | 86.9 | 94.9 | 88.2 | 85.2 | 96.3 | 90.6 | 88.1 |
| November | 95.5 | 89.6 | 87.5 | 93.2 | 88.0 | 83.6 | 94.7 | 89.5 | 86.6 |
| December | 94.1 | 87.4 | 84.8 | 91.7 | 86.5 | 80.4 | 93.2 | 87.4 | 83.8 |
| **1983 Average** | **97.0** | **90.6** | **89.0** | **95.2** | **89.7** | **85.6** | **96.4** | **90.5** | **88.2** |

# Supplier Prices of Residual Fuel Oil

| | Residual Fuel Oil Sulfur Content Less Than or Equal to 1 % | | Residual Fuel Oil Sulfur Content Greater Than 1 % | | Average | |
|---|---|---|---|---|---|---|
| Year Month | Sales to End-Users | Sales for Resale | Sales to End-Users | Sales for Resale | Sales to End-Users | Sales for Resale |
| **1978 Average** | **31.4** | **29.3** | **27.5** | **24.5** | **29.8** | **26.3** |
| **1979 Average** | **46.8** | **45.0** | **38.9** | **36.8** | **43.6** | **39.9** |
| **1980 Average** | **67.5** | **60.8** | **52.3** | **47.9** | **60.7** | **52.8** |
| **1981 Average** | **82.9** | **74.8** | **67.3** | **62.2** | **75.6** | **66.3** |
| **1982** | | | | | | |
| January | 77.7 | 71.8 | 60.7 | 57.0 | 68.8 | 62.0 |
| February | 77.4 | 71.5 | 58.4 | 54.6 | 69.1 | 60.2 |
| March | 75.6 | 68.4 | 57.1 | 54.1 | 67.4 | 59.1 |
| April | 73.5 | 66.8 | 57.8 | 54.6 | 65.1 | 58.5 |
| May | 74.0 | 68.4 | 61.5 | 58.0 | 66.7 | 61.0 |
| June | 75.1 | 68.1 | 63.2 | 58.6 | 68.8 | 61.5 |
| July | 72.7 | 67.9 | 62.9 | 56.3 | 68.1 | 60.1 |
| August | 71.8 | 67.1 | 61.5 | 58.7 | 66.2 | 60.7 |
| September | 72.1 | 68.1 | 61.6 | 58.3 | 66.3 | 61.2 |
| October | 75.9 | 72.6 | 62.9 | 59.5 | 68.1 | 63.5 |
| November | 76.3 | 72.6 | 64.1 | 60.7 | 70.0 | 65.3 |
| December | 72.0 | 69.2 | 61.9 | 58.2 | 66.4 | 61.7 |
| **1982 Average** | **74.7** | **69.5** | **61.1** | **57.2** | **67.6** | **61.2** |
| **1983** | | | | | | |
| January | 70.5 | 65.0 | 60.1 | 57.0 | 64.2 | 60.3 |
| February | 66.0 | 63.0 | 58.5 | 55.7 | 62.0 | 58.5 |
| March | 66.2 | 60.0 | 57.0 | 55.9 | 60.9 | 57.7 |
| April | 64.3 | 60.1 | 58.7 | 56.5 | 61.0 | 57.7 |
| May | 66.9 | 62.6 | 59.7 | 57.8 | 63.2 | 59.2 |
| June | 69.2 | 63.2 | 60.1 | 58.5 | 64.7 | 60.2 |
| July | 70.4 | 65.2 | 61.4 | 60.5 | 65.9 | 62.2 |
| August | 71.6 | 66.7 | 63.2 | 62.0 | 67.7 | 63.8 |
| September | 72.6 | 67.0 | 65.3 | 63.3 | 69.0 | 64.6 |
| October | 72.1 | 68.8 | 64.9 | 62.6 | 68.7 | 64.7 |
| November | 70.7 | 66.5 | 64.4 | 62.2 | 67.4 | 63.6 |
| December | 72.0 | 67.3 | 63.1 | 60.2 | 67.2 | 62.3 |
| **1983 Average** | **69.5** | **64.3** | **61.1** | **59.1** | **65.1** | **60.9** |

Source: (Both tables) Energy Information Administration, Petroleum Marketing Monthly, December 1983.

# Supplier Product Prices For Resale

| Year Month | Finished Motor Gasoline | Finished Aviation Gasoline | Kerosine-Type Jet Fuel | Kerosine | No. 1 Distillate | No. 2 Distillate | | | No. 4 Fuel[3] | Residual Fuel Oil | Propane (Consumer Grade) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | No. 2 Fuel Oil | No. 2 Diesel Fuel | Average | | | |
| **1978 Average** | 43.4 | 53.7 | 38.6 | 40.4 | 40.6 | 36.9 | 36.5 | 36.7 | 30.5 | 26.3 | 23.7 |
| **1979 Average** | 63.7 | 72.1 | 66.0 | 62.4 | 58.3 | 56.9 | 57.4 | 57.1 | 47.0 | 39.9 | 29.1 |
| **1980 Average** | 94.1 | 112.8 | 86.8 | 86.4 | 88.0 | 80.3 | 80.1 | 80.2 | 67.0 | 52.8 | 41.5 |
| **1981 Average** | 106.4 | 125.0 | 101.2 | 106.6 | 107.1 | 97.6 | 97.2 | 97.4 | 78.3 | 66.3 | 46.6 |
| **1982** | | | | | | | | | | | |
| January | 102.3 | 128.8 | 100.5 | 108.5 | 107.0 | 98.0 | 96.7 | 97.5 | 74.7 | 62.0 | 42.4 |
| February | 98.9 | 128.4 | 99.2 | 106.3 | 105.7 | 93.9 | 93.5 | 93.7 | 74.9 | 60.2 | 37.8 |
| March | 92.6 | 123.1 | 96.8 | 99.9 | 99.9 | 86.6 | 89.0 | 87.3 | 71.6 | 59.1 | 35.3 |
| April | 89.6 | 119.3 | 92.2 | 95.1 | 98.7 | 83.3 | 85.4 | 84.1 | 71.3 | 58.5 | 34.4 |
| May | 94.1 | 115.3 | 91.0 | 95.5 | 100.1 | 86.5 | 87.9 | 87.2 | 72.8 | 61.0 | 34.9 |
| June | 100.5 | 120.7 | 93.3 | 97.4 | 104.8 | 89.8 | 92.2 | 91.0 | 74.6 | 61.5 | 36.4 |
| July | 101.7 | 126.7 | 93.5 | 97.0 | 104.4 | 91.0 | 92.1 | 91.6 | 73.2 | 60.1 | 39.2 |
| August | 101.0 | 123.9 | 94.2 | 96.9 | 102.9 | 90.3 | 91.0 | 90.7 | 72.9 | 60.7 | 43.2 |
| September | 99.6 | 121.8 | 94.7 | 100.6 | 102.6 | 92.0 | 91.1 | 91.6 | 72.5 | 61.2 | 48.8 |
| October | 98.4 | 122.7 | 97.6 | 105.7 | 106.1 | 96.5 | 94.4 | 95.5 | 76.4 | 63.5 | 50.4 |
| November | 96.4 | 124.6 | 97.3 | 105.3 | 106.5 | 97.3 | 96.1 | 96.8 | 76.2 | 65.3 | 52.5 |
| December | 92.4 | 125.9 | 92.9 | 98.2 | 99.2 | 89.5 | 90.0 | 89.6 | 73.7 | 61.7 | 48.9 |
| **1982 Average** | 97.3 | 122.8 | 95.3 | 101.8 | 103.8 | 91.4 | 91.4 | 91.4 | 73.7 | 61.2 | 42.7 |
| **1983** | | | | | | | | | | | |
| January | 88.5 | 124.8 | 91.8 | 94.2 | 94.0 | 85.7 | 85.5 | 85.7 | 81.7 | 60.3 | 47.0 |
| February | 85.4 | 123.7 | 89.9 | 90.0 | 89.0 | 80.1 | 80.7 | 80.3 | 76.8 | 58.5 | 46.7 |
| March | 82.9 | 121.2 | 84.5 | 83.1 | 84.5 | 76.0 | 75.2 | 75.7 | 72.5 | 57.7 | 47.4 |
| April | 86.5 | 120.0 | 82.9 | 84.2 | 86.0 | 78.9 | 76.8 | 78.0 | 74.1 | 57.7 | 50.0 |
| May | 90.4 | 120.2 | 84.3 | 87.7 | 88.5 | 80.9 | 80.2 | 80.5 | 72.1 | 59.2 | 50.5 |
| June | 91.5 | 115.0 | 84.1 | 84.6 | 86.8 | 80.9 | 80.3 | 80.6 | 72.9 | 60.2 | 50.9 |
| July | 92.3 | 115.2 | 84.8 | 85.2 | 86.9 | 81.7 | 80.8 | 81.2 | 70.0 | 62.2 | 50.7 |
| August | 91.5 | 114.7 | 85.4 | 86.7 | 90.1 | 83.4 | 81.7 | 82.5 | 70.2 | 63.8 | 49.8 |
| September | 90.2 | 113.7 | 86.3 | 91.9 | 92.0 | 85.1 | 83.5 | 84.2 | 69.8 | 64.6 | 50.1 |
| October | 88.1 | 118.9 | 86.4 | 90.8 | 92.1 | 83.5 | 83.0 | 83.2 | 67.9 | 64.7 | 49.9 |
| November | 86.6 | 118.7 | 84.4 | 90.4 | 90.2 | 82.6 | 82.0 | 82.4 | 70.2 | 63.6 | 47.3 |
| December | 83.8 | 118.8 | 83.6 | 88.6 | 88.4 | 80.7 | 80.1 | 80.5 | 71.4 | 62.3 | 45.4 |
| **1983 Average** | 88.2 | 117.8 | 85.4 | 89.2 | 89.6 | 81.5 | 80.8 | 81.2 | 72.6 | 60.9 | 48.4 |

# Supplier Product Prices to End-Users

| Year Month | Finished Motor Gasoline | Finished Aviation Gasoline | Kerosine-Type Jet Fuel | Kerosine | No. 1 Distillate | No. 2 Distillate | | | No. 4 Fuel[3] | Residual Fuel Oil | Propane (Consumer Grade) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | No. 2 Fuel Oil | No. 2 Diesel Fuel | Average | | | |
| **1978 Average** | 48.4 | 51.6 | 38.7 | 42.1 | 40.9 | 40.0 | 37.7 | 39.6 | 31.1 | 29.8 | 33.5 |
| **1979 Average** | 71.3 | 63.9 | 54.7 | 58.5 | 57.2 | 51.6 | 58.5 | 55.1 | 47.9 | 43.6 | 35.7 |
| **1980 Average** | 103.5 | 108.4 | 86.8 | 90.2 | 83.4 | 78.8 | 81.8 | 80.4 | 68.2 | 60.7 | 46.2 |
| **1981 Average** | 114.7 | 130.3 | 102.4 | 112.3 | 103.9 | 91.4 | 99.5 | 95.8 | 79.7 | 75.6 | 56.5 |
| **1982** | | | | | | | | | | | |
| January | 110.8 | 132.0 | 101.0 | 111.2 | 107.2 | 94.4 | 98.7 | 98.0 | 76.0 | 68.8 | 57.8 |
| February | 108.6 | 132.8 | 100.4 | 110.7 | 108.4 | 95.0 | 96.7 | 97.0 | 76.3 | 69.1 | 57.7 |
| March | 102.2 | 133.6 | 99.0 | 112.2 | 105.3 | 90.6 | 91.9 | 91.9 | 72.9 | 67.4 | 57.3 |
| April | 98.3 | 131.5 | 96.2 | 103.1 | 104.9 | 85.0 | 90.1 | 87.6 | 72.6 | 65.1 | 57.3 |
| May | 102.1 | 131.5 | 94.9 | 105.1 | 97.1 | 84.4 | 91.5 | 87.8 | 74.1 | 66.7 | 57.8 |
| June | 109.3 | 131.3 | 94.7 | 109.4 | 102.8 | 85.1 | 95.8 | 90.8 | 75.9 | 68.8 | 57.7 |
| July | 110.4 | 133.2 | 94.7 | 109.0 | 92.5 | 83.6 | 94.8 | 89.6 | 74.5 | 68.1 | 55.1 |
| August | 108.9 | 131.4 | 94.8 | 101.9 | 101.3 | 86.3 | 93.1 | 89.3 | 74.2 | 66.2 | 56.7 |
| September | 107.7 | 128.8 | 94.5 | 102.7 | 104.1 | 86.2 | 93.5 | 89.9 | 73.8 | 66.3 | 59.9 |
| October | 106.4 | 130.3 | 95.2 | 107.7 | 104.2 | 89.8 | 95.7 | 92.8 | 77.7 | 68.1 | 60.7 |
| November | 105.1 | 129.5 | 95.8 | 113.7 | 105.4 | 94.2 | 97.7 | 95.9 | 77.6 | 70.0 | 63.2 |
| December | 102.2 | 129.1 | 95.0 | 108.3 | 98.5 | 93.9 | 94.0 | 94.9 | 75.0 | 66.4 | 64.2 |
| **1982 Average** | 106.0 | 131.2 | 96.3 | 108.9 | 102.3 | 90.5 | 94.2 | 92.5 | 75.0 | 67.6 | 59.2 |
| **1983** | | | | | | | | | | | |
| January | 97.1 | 129.2 | 94.5 | 104.5 | 100.8 | 100.9 | 89.2 | 91.9 | 81.0 | 64.2 | 72.7 |
| February | 92.5 | 127.2 | 92.6 | 101.4 | 95.4 | 97.0 | 84.0 | 86.6 | 77.3 | 62.0 | 71.7 |
| March | 89.8 | 126.6 | 90.6 | 97.1 | 91.2 | 93.0 | 78.0 | 80.1 | 76.6 | 60.9 | 68.1 |
| April | 94.7 | 125.2 | 88.8 | 93.4 | 92.0 | 89.1 | 78.8 | 80.2 | 77.9 | 61.0 | 68.6 |
| May | 96.6 | 125.4 | 87.8 | 93.8 | 94.4 | 89.5 | 81.8 | 82.5 | 75.7 | 63.2 | 72.2 |
| June | 97.8 | 125.6 | 86.3 | 90.0 | 97.9 | 87.3 | 81.5 | 82.0 | 74.7 | 64.7 | 67.3 |
| July | 98.8 | 125.1 | 85.6 | 89.0 | 99.9 | 85.1 | 82.0 | 82.3 | 75.2 | 65.9 | 66.4 |
| August | 98.4 | 125.9 | 85.5 | 90.8 | 99.0 | 86.1 | 83.0 | 83.3 | 75.8 | 67.7 | 68.9 |
| September | 96.9 | 124.2 | 86.1 | 92.7 | 99.5 | 88.0 | 84.8 | 85.2 | 75.3 | 69.0 | 74.9 |
| October | 95.4 | 124.7 | 86.0 | 98.9 | 98.0 | 89.0 | 84.2 | 84.7 | 73.0 | 68.7 | 69.6 |
| November | 93.9 | 124.5 | 85.8 | 100.0 | 95.4 | 90.1 | 83.5 | 84.5 | 77.4 | 67.4 | 72.8 |
| December | 92.3 | 124.4 | 85.5 | 96.6 | 92.6 | 92.1 | 82.2 | 84.0 | 75.8 | 67.2 | 76.1 |
| **1983 Average** | 95.3 | 125.5 | 87.8 | 96.1 | 96.2 | 91.6 | 82.6 | 83.9 | 76.6 | 65.1 | 70.9 |

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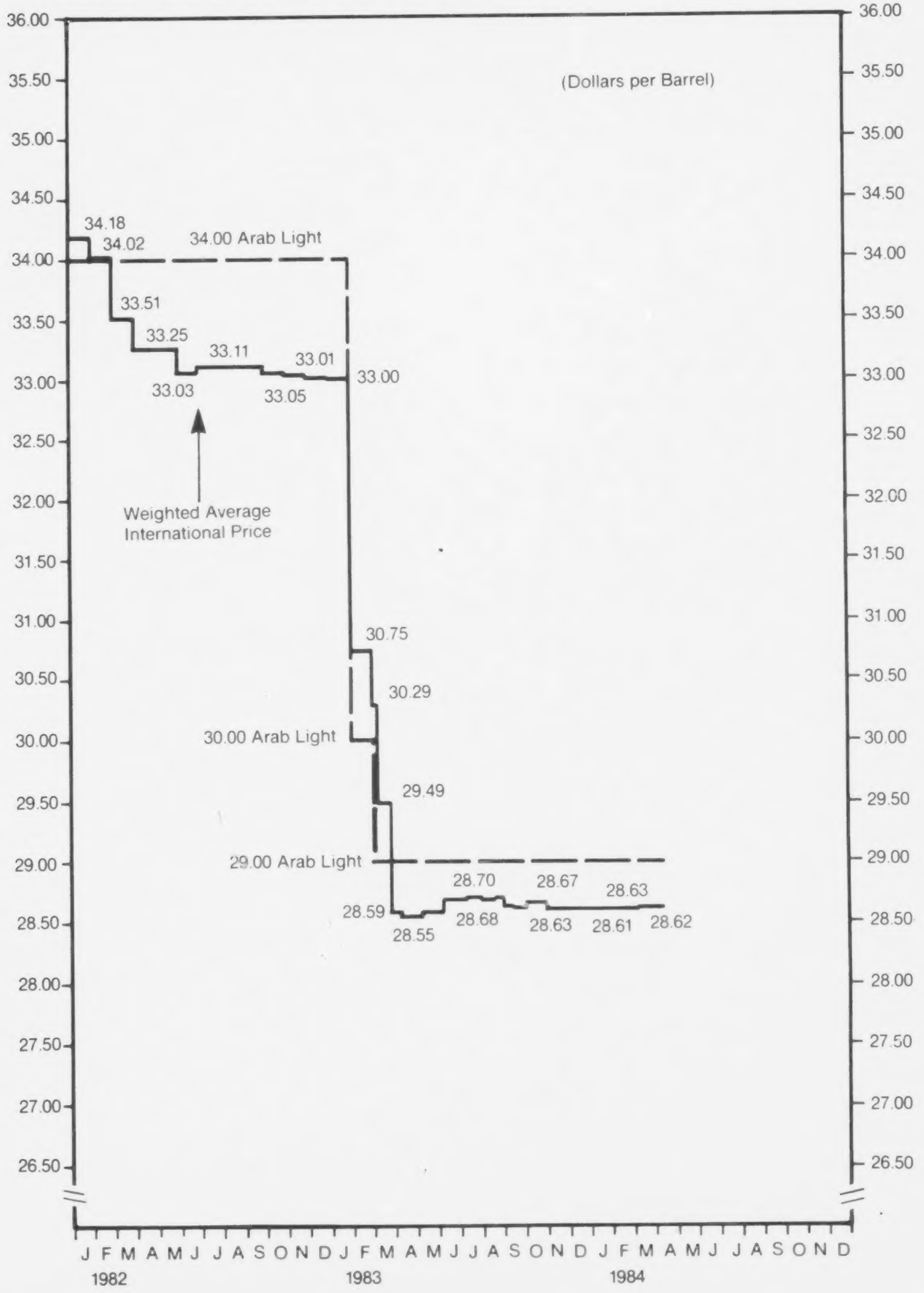
Source: (Both tables) Energy Information Administration, Petroleum Marketing Monthly, December 1983 (3) March 1984

# World Crude Oil Prices (a)



(a) Internationally traded oil only. Average price (FOB) weighted by estimated export volume.
Source: Weekly Petroleum Stores Report Energy Information Administration, April 1984

# Spot Market Product Prices

($ per bbl.)

| | | Motor Gasoline | | Gasoil/Heating Oil | | Residual Fuel Oil | |
|---|---|---|---|---|---|---|---|
| 1984 | | Rotterdam (98 Octane) | New York (89 Octane) | Rotterdam (0.5% Sulfur) | New York (0.2% Sulfur) | Rotterdam (1% Sulfur) | New York (1% Sulfur) |
| Jan | 6 | 30.72 | 32.57 | 33.78 | 35.28 | 28.15 | 29.75 |
| | 13 | 30.25 | 32.34 | 33.85 | 36.12 | 27.78 | 30.15 |
| | 20 | 31.65 | 34.17 | 34.38 | 41.79 | 28.00 | 30.25 |
| | 27 | 32.24 | 33.34 | 35.12 | 44.10 | 27.85 | 31.25 |
| Feb | 3 | 31.48 | 34.69 | 34.79 | 42.42 | 28.23 | 31.50 |
| | 10 | 31.48 | 33.64 | 33.51 | 38.01 | 28.60 | 31.00 |
| | 17 | 31.48 | 33.85 | 33.04 | 34.23 | 28.53 | 30.75 |
| | 24 | 31.89 | 33.18 | 33.24 | 32.55 | 28.53 | 30.25 |
| Mar | 2 | 33.59 | 34.86 | 33.71 | 33.08 | 28.53 | 29.25 |
| | 9 | 33.47 | 35.01 | 33.98 | 32.86 | 28.30 | 29.25 |
| | 16 | 33.82 | 34.69 | 34.38 | 32.55 | 28.30 | 29.00 |
| | 23 | 33.29 | 34.38 | 34.12 | 33.50 | 28.15 | 28.75 |
| | 30 | 32.77 | 35.87 | 34.12 | 34.76 | 28.00 | 28.75 |
| Apr | 6 | 33.06 | 35.26 | 34.12 | 35.91 | 28.60 | 29.25 |
| | 13 | 33.06 | 35.15 | 33.31 | 36.02 | 28.15 | 29.40 |
| | 20 | 32.53 | 34.08 | 32.91 | 36.12 | 27.85 | 29.40 |
| | 27 | 32.36 | 33.73 | 32.84 | 36.18 | 27.85 | 29.40 |
| **1983** | | | | | | | |
| Jan | 7 | 34.88 | 35.13 | 37.73 | 34.86 | 27.55 | 25.75 |
| | 14 | 35.46 | 34.82 | 37.47 | 34.44 | 26.73 | 25.75 |
| | 21 | 34.29 | 36.29 | 37.00 | 35.60 | 26.58 | 26.00 |
| | 28 | 33.88 | 35.03 | 34.45 | 33.08 | 25.98 | 25.50 |
| Feb | 4 | 33.70 | 34.57 | 32.37 | 32.55 | 23.87 | 25.00 |
| | 11 | 31.48 | 34.82 | 33.98 | 32.76 | 24.47 | 26.00 |
| | 18 | 31.48 | 34.82 | 33.98 | 32.76 | 24.47 | 26.00 |
| | 25 | 30.72 | 33.24 | 30.63 | 31.08 | 22.97 | 25.00 |
| Mar | 4 | 31.01 | 32.99 | 31.70 | 30.56 | 23.50 | 25.25 |
| | 11 | 31.65 | 33.41 | 31.70 | 30.45 | 24.17 | 25.25 |
| | 18 | 32.30 | 34.57 | 31.64 | 30.56 | 24.92 | 25.25 |
| | 25 | 32.53 | 35.57 | 30.90 | 30.76 | 24.70 | 25.25 |
| Apr | 1 | 33.82 | 36.77 | 31.70 | 31.71 | 25.23 | 25.75 |
| | 8 | 34.70 | 36.77 | 32.51 | 32.66 | 25.30 | 26.00 |
| | 15 | 36.69 | 37.09 | 33.58 | 34.65 | 25.90 | 26.50 |
| | 22 | 35.58 | 37.40 | 33.78 | 35.28 | 25.60 | 26.75 |
| | 29 | 36.75 | 37.19 | 33.51 | 35.49 | 25.98 | 26.75 |
| May | 6 | 36.28 | 36.88 | 32.51 | 34.54 | 25.98 | 27.00 |
| | 13 | 34.94 | 36.67 | 31.57 | 33.18 | 25.30 | 26.50 |
| | 20 | 35.35 | 36.98 | 31.97 | 33.28 | 25.75 | 27.00 |
| | 27 | 35.58 | 37.19 | 32.24 | 33.50 | 26.13 | 27.25 |
| Jun | 3 | 35.76 | 37.19 | 32.10 | 33.28 | 25.98 | 27.50 |
| | 10 | 35.81 | 37.32 | 33.24 | 33.39 | 25.98 | 27.60 |
| | 17 | 36.87 | 37.84 | 33.38 | 34.12 | 25.83 | 28.05 |
| | 24 | 37.87 | 37.84 | 33.51 | 34.23 | 26.80 | 28.50 |
| Jul | 1 | 37.16 | 37.42 | 32.84 | 34.02 | 26.28 | 28.35 |
| | 8 | Not available. | | | | | |
| | 15 | 36.81 | 36.62 | 33.18 | 34.23 | 28.00 | 29.00 |
| | 22 | 36.28 | 36.63 | 33.18 | 34.23 | 28.23 | 28.75 |
| | 29 | 36.05 | 36.52 | 33.04 | 34.34 | 28.15 | 28.75 |
| Aug | 5 | 36.22 | 36.64 | 33.71 | 35.18 | 28.53 | 28.75 |
| | 12 | 36.40 | 36.52 | 34.18 | 35.28 | 28.68 | 29.00 |
| | 19 | 36.52 | 36.52 | 34.79 | 35.28 | 28.53 | 29.00 |
| | 26 | 36.34 | 36.73 | 34.65 | 35.28 | 28.38 | 29.35 |
| Sep | 2 | 35.87 | 36.29 | 34.18 | 35.07 | 28.08 | 29.25 |
| | 9 | 34.47 | 35.99 | 33.58 | 34.65 | 27.33 | 28.75 |
| | 16 | 34.35 | 35.78 | 33.44 | 34.86 | 26.95 | 28.75 |
| | 23 | 34.41 | 35.87 | 33.85 | 35.01 | 26.95 | 28.75 |
| | 30 | 33.24 | 34.92 | 33.71 | 34.02 | 27.63 | 28.75 |
| Oct | 7 | 33.41 | 34.29 | 32.51 | 33.50 | 27.40 | 28.00 |
| | 14 | 33.59 | 34.82 | 33.11 | 34.02 | 27.48 | 27.95 |
| | 21 | 34.17 | 34.40 | 34.05 | 33.28 | 27.78 | 27.90 |
| | 28 | 34.41 | 33.94 | 33.98 | 33.18 | 27.78 | 28.10 |
| Nov | 4 | 34.70 | 34.65 | 34.25 | 34.65 | 28.08 | 28.25 |
| | 11 | 35.05 | 34.25 | 34.65 | 34.12 | 27.85 | 28.75 |
| | 18 | 33.94 | 33.54 | 32.91 | 33.28 | 27.33 | 28.50 |
| | 25 | 33.59 | 33.08 | 32.84 | 33.18 | 26.43 | 28.25 |
| Dec | 2 | 33.06 | 32.66 | 33.58 | 32.97 | 26.65 | 28.20 |
| | 9 | 32.94 | 31.90 | 33.11 | 33.08 | 27.10 | 28.25 |
| | 16 | 31.95 | 30.91 | 33.11 | 32.66 | 27.55 | 28.50 |
| | 23 | 31.65 | 30.98 | 33.11 | 33.70 | 27.55 | 28.50 |
| | 30 | Not available. | | | | | |

# International Prices for Gasoline and Fuel Oil

**(U.S. dollars per gal. for gasoline; per 42-gal. bbl. for fuel oil)**

| | 1/1/83 | | | | 7/1/82 | | | | 1/1/82 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Gasoline | | Fuel Oil | | Gasoline | | Fuel Oil | | Gasoline | | Fuel Oil | |
| Country | Reg. | Prem. | Dist. | Resid. | Reg. | Prem. | Dist. | Resid. | Reg. | Prem. | Dist. | Resid. |
| **WESTERN HEMISPHERE** | | | | | | | | | | | | |
| Argentina | .90 | 1.00 | 17.05 | 10.87 | 1.09 | 1.30 | 16.79 | 10.11 | — | — | — | — |
| Bolivia | .47 | .66 | 17.49 | — | .69 | .86 | 27.10 | — | .91 | 1.06 | 34.98 | — |
| Brazil | 2.47 | — | 36.39 | 26.84 | 2.83 | — | 39.97 | 27.37 | — | — | — | — |
| Canada | 1.34 | 1.46 | — | 33.61 | 1.29 | 1.40 | — | 31.30 | — | — | — | — |
| Chile | — | 2.47 | 36.39 | 26.84 | — | 2.83 | 39.97 | 27.37 | — | — | — | — |
| Colombia | .95 | 1.08 | — | — | .86 | 1.00 | — | — | .94 | 1.10 | 19.74 | — |
| Ecuador | .91 | 1.21 | — | 8.91 | .45 | .61 | — | 8.91 | — | — | — | — |
| El Salvador | — | — | — | — | 2.49 | 2.56 | 32.76 | — | 2.90 | 2.98 | 38.13 | — |
| Jamaica | 2.12 | 2.17 | 55.15 | 34.03 | 2.12 | 2.17 | 55.15 | 34.03 | 2.12 | 2.17 | 55.15 | 34.03 |
| Mexico | .51 | .76 | 10.71 | 36.40 | .48 | .80 | 8.42 | 36.68 | .87 | 1.45 | 15.23 | 3.19 |
| Panama Republic | 2.18 | 2.32 | — | — | 2.18 | 2.32 | — | — | 2.18 | 2.32 | 38.90 | — |
| Paraguay | 4.81 | 6.01 | 68.77 | 55.52 | 3.30 | 4.21 | 68.77 | 55.52 | 3.30 | 4.21 | 68.77 | 55.52 |
| Peru | 1.01 | 1.21 | 33.02 | 29.43 | 1.01 | 1.23 | 32.74 | 27.23 | .94 | 1.13 | — | — |
| United States | 1.15 | 1.35 | 42.42 | 27.05 | 1.26 | 1.45 | 43.22 | 25.97 | 1.22 | 1.35 | 45.15 | 27.26 |
| Venezuela | .26 | .88 | 2.40 | 1.78 | .26 | .88 | 2.40 | 1.78 | .13 | .31 | 2.03 | 1.50 |
| **WESTERN EUROPE** | | | | | | | | | | | | |
| Austria | 2.40 | 2.49 | — | 29.46 | 2.31 | 2.40 | — | 30.67 | 2.64 | 2.78 | — | 34.84 |
| Belgium | 2.53 | 2.64 | 54.77 | 36.71 | 2.64 | 2.72 | 50.95 | 35.08 | 2.77 | 2.79 | 59.62 | 31.07 |
| Denmark | 2.83 | 2.86 | 70.29 | 45.03 | 2.70 | 2.74 | 60.92 | 41.58 | 2.86 | 2.90 | 71.06 | 47.20 |
| Finland | — | — | — | — | 2.63 | 2.75 | 78.48 | 27.52 | 2.68 | 2.79 | 79.84 | 28.57 |
| France | 2.51 | 2.68 | 60.73 | 30.57 | 2.24 | 2.41 | 51.20 | 28.14 | — | — | — | — |
| Germany, West | 2.14 | 2.27 | 46.84 | 30.17 | 2.04 | 2.15 | — | 29.97 | — | — | — | — |
| Greece | 2.47 | 2.68 | — | 30.37 | 2.19 | 2.41 | 45.59 | 26.67 | — | — | — | — |
| Italy | 3.16 | 3.30 | 64.21 | 37.22 | 2.65 | 2.79 | 49.62 | 28.00 | — | — | — | — |
| Luxembourg | 1.85 | 1.92 | 45.73 | 27.51 | 2.00 | 2.06 | 48.77 | 29.38 | 2.26 | 2.34 | 55.04 | 28.82 |
| Netherlands | 2.36 | 2.44 | — | 36.05 | 2.47 | 2.55 | — | 37.86 | 2.59 | 2.50 | — | — |
| Norway | 2.67 | 2.73 | 60.94 | 38.90 | 2.67 | 2.72 | 59.77 | 34.20 | 2.84 | 2.89 | — | 39.62 |
| Portugal | 2.98 | 3.15 | 62.48 | 28.07 | 2.64 | 2.82 | 60.59 | 28.40 | 3.14 | 3.37 | 68.40 | 29.63 |
| Spain | 2.38 | 2.69 | 65.93 | 30.76 | 2.22 | 2.49 | 61.70 | 28.27 | 2.56 | 2.88 | 71.21 | 32.63 |
| Sweden | 2.18 | 2.24 | 50.19 | 44.31 | 2.35 | 2.40 | 55.24 | 46.53 | — | — | — | — |
| Switzerland | 2.29 | 2.37 | 43.25 | 28.43 | — | — | — | — | — | — | — | — |
| Turkey | — | — | — | — | 1.38 | 2.09 | 53.46 | 36.57 | 1.47 | 1.62 | 41.07 | 27.27 |
| United Kingdom | NR | NR | NR | NR | NR | NR | NR | NR | 2.46 | 2.50 | — | 44.95 |
| Yugoslavia | 2.32 | 2.44 | 48.70 | 44.85 | 2.94 | 2.78 | — | — | 2.66 | 2.86 | 59.10 | 54.04 |
| **MIDDLE EAST** | | | | | | | | | | | | |
| Israel | 2.18 | 2.37 | 67.89 | 30.78 | 2.06 | 2.25 | 64.59 | 32.46 | 1.84 | 2.08 | 58.88 | 33.93 |
| Saudi Arabia | .18 | .24 | 1.62 | 2.02 | .18 | .24 | 1.62 | 2.02 | — | — | — | — |
| **AFRICA** | | | | | | | | | | | | |
| Ethiopia | 2.18 | 2.36 | 45.58 | 26.43 | — | — | — | — | 2.18 | 2.36 | 46.58 | — |
| Ghana | 3.42 | 3.73 | 58.03 | 43.39 | 3.42 | 3.73 | 58.03 | 43.39 | 3.42 | 3.72 | 58.02 | 43.39 |
| Morocco | 2.72 | 2.84 | 38.50 | 32.37 | 2.76 | 2.78 | 39.07 | 32.84 | — | — | — | — |
| South Africa, Republic of | 2.14 | 2.17 | 68.67 | 37.86 | 1.96 | 1.98 | 63.29 | 32.13 | 2.27 | 2.30 | 72.56 | 35.77 |
| Tunisia | 1.82 | 1.94 | — | 18.29 | 1.67 | 1.86 | — | 15.41 | 1.95 | 2.06 | — | 15.24 |
| **ASIA-PACIFIC** | | | | | | | | | | | | |
| Australia | 1.81 | 1.85 | 60.69 | 38.43 | 1.68 | 1.72 | 49.05 | 35.72 | — | — | — | — |
| India | — | — | — | — | 2.55 | 2.62 | 46.39 | 36.90 | 2.53 | 2.60 | 41.82 | 35.09 |
| Indonesia | 1.76 | 2.19 | 28.98 | 28.98 | 1.40 | 2.10 | 18.35 | 18.35 | — | — | — | — |
| Japan | 2.70 | 2.85 | 70.88 | 41.07 | 2.46 | 2.61 | 64.84 | 37.41 | 2.74 | 2.91 | 74.20 | 42.04 |
| Korea (South) | 3.32 | 4.47 | — | 43.56 | — | — | — | — | 4.06 | 5.82 | — | 48.73 |
| Pakistan | 1.61 | 1.76 | — | 15.02 | 1.69 | 1.85 | — | 15.81 | 1.93 | 2.19 | — | 19.46 |
| Philippines | 2.03 | 2.14 | — | — | 2.25 | 2.34 | — | — | 2.36 | 2.45 | 40.83 | 40.83 |
| Singapore | 1.83 | 2.03 | 49.68 | 26.18 | 1.73 | 1.88 | 47.70 | 27.06 | — | — | — | — |
| Sri Lanka | — | 1.79 | 49.49 | 28.39 | — | 1.90 | 52.46 | 24.78 | — | — | — | — |
| Thailand | 1.88 | 2.21 | 49.22 | 30.35 | 1.88 | 2.21 | 49.22 | 30.35 | 1.87 | 2.21 | 49.11 | 30.28 |

(NR) = not reported; (—) = not listed in 1983 summaries.

Source: 1982 International Energy Annual, Department of Energy, September 1983. Gasoline and fuel oil prices are for the capitals of each country involved, except the U.S., which is the national average for the month. All gasoline prices are pump retails and include taxes and custom duties.

## International Prices of Diesel Fuel and Household Kerosine

(U.S. cents per gal.)

| Country | Auto Diesel |  | Household Kerosine |  |
|---|---|---|---|---|
|  | 1/1/83 | 7/1/82 | 1/1/83 | 7/1/82 |
| **Western Hemisphere** |  |  |  |  |
| Argentina | .41 | .40 | 55 | .64 |
| Bolivia | .44 | .69 | .15 | .43 |
| Brazil | 1.51 | 1.70 | 1.52 | 1.72 |
| Canada | 1.35 | 1.30 | 1.28 | 1.16 |
| Chile | 1.48 | 1.41 | 1.54 | 1.56 |
| Colombia | .95 | 86 | .95 | .86 |
| Ecuador | .33 | .35 | .18 | .18 |
| El Salvador | — | 1.70 | — | 1.58 |
| Jamaica | 1.35 | 1.35 | 1.16 | 1.16 |
| Mexico | .25 | .20 | .17 | .04 |
| Panama Republic | 1.40 | 1.40 | 1.30 | 1.30 |
| Paraguay | 1.74 | 1.74 | 2.10 | 2.10 |
| Peru | .79 | .78 | .35 | .26 |
| United States | .89 | 1.01 | 1.04 | 1.09 |
| Venezuela | .27 | — | .09 | .09 |
| **Western Europe** |  |  |  |  |
| Austria | 2.33 | 2.24 | 3.76 | 3.72 |
| Belgium | 1.98 | 1.85 | 1.35 | 1.26 |
| Denmark | 1.82 | 1.60 | 1.68 | 1.47 |
| Finland | — | 1.90 | — | 1.44 |
| France | 2.07 | 1.83 | — | — |
| Germany, West | 2.12 | 2.00 | — | — |
| Greece | 1.31 | 1.09 | — | 1.41 |
| Italy | 1.64 | 1.35 | 1.79 | 1.13 |
| Luxembourg | 1.39 | 1.44 | 1.16 | — |
| Netherlands | 1.73 | 1.65 | 1.42 | 1.32 |
| Norway | 1.55 | 1.53 | 1.57 | 1.47 |
| Portugal | 1.49 | 1.44 | 1.49 | 1.40 |
| Spain | 1.57 | 1.47 | 1.63 | 1.50 |
| Sweden | 1.35 | 1.42 | 1.36 | 1.25 |
| Switzerland | 2.42 | — | — | — |
| Turkey | — | 1.27 | — | 1.31 |
| United Kingdom | N.R. | N.R. | N.R. | N.R. |
| Yugoslavia | 2.00 | 2.41 | 1.86 | — |
| **Middle East** |  |  |  |  |
| Israel | 1.72 | 1.64 | 1.76 | 1.76 |
| Saudi Arabia | .08 | .08 | .15 | .15 |
| **Africa** |  |  |  |  |
| Ethiopia | 1.44 | — | 1.20 | — |
| Ghana | 2.57 | 2.57 | 1.51 | 1.51 |
| Morocco | 1.36 | 1.38 | 1.36 | 1.38 |
| South Africa, Rep. of | 2.20 | 2.00 | 1.43 | 1.29 |
| Tunisia | — | — | .61 | .44 |
| **Asia-Pacific** |  |  |  |  |
| Australia | 1.88 | 1.77 | 1.48 | 1.35 |
| Burma |  |  |  |  |
| India | — | 1.27 | — | .76 |
| Indonesia | .80 | 50 | .55 | .35 |
| Japan | 1.92 | 1.74 | 1.53 | 1.35 |
| Korea (South) | 1.42 | — | 1.49 | — |
| Pakistan | 1.02 | 1.07 | .81 | .85 |
| Philippines | 1.28 | 1.39 | 1.28 | 1.39 |
| Singapore | 1.23 | 1.23 | 1.38 | 1.48 |
| Sri Lanka | 1.06 | 1.12 | .69 | .74 |
| Thailand | 1.22 | 1.22 | 1.01 | 1.01 |

Source: 1982 International Energy Report, Department of Energy, September 1983.

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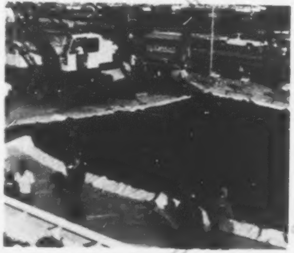

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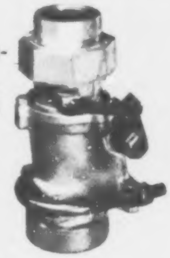

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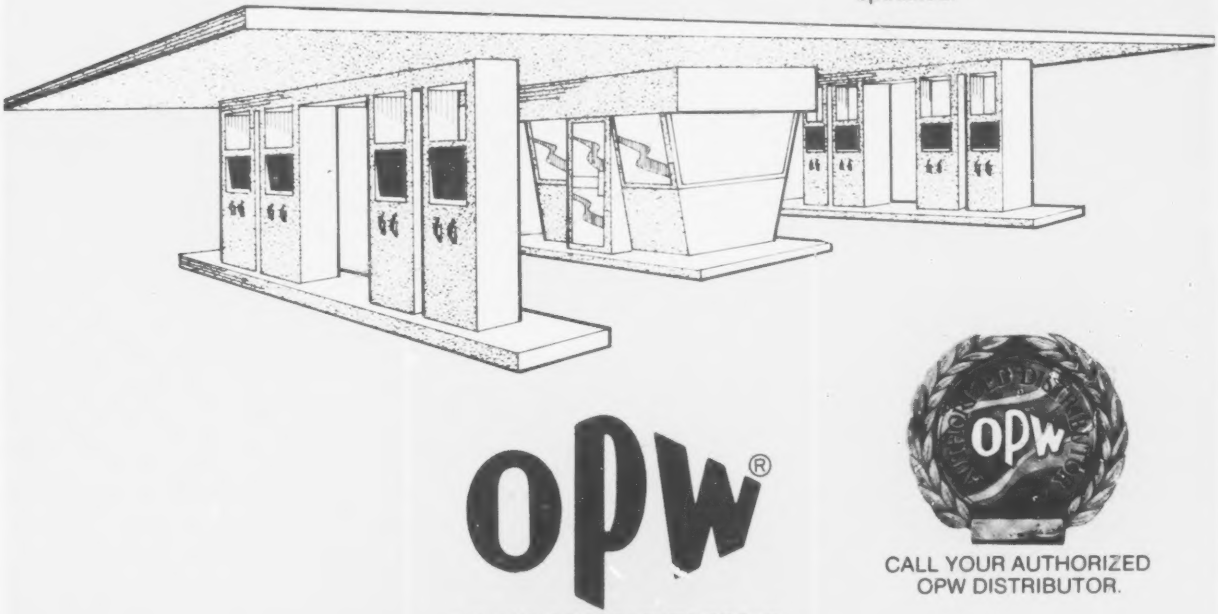

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# Service Station Shakeout Continues

**The service station shakeout that began back in 1973 in the wake of the Arab oil embargo continued unabated in 1983. And, the outlook is for more of the same in 1984.**

The new population total for the end of 1983 is 136,570. This is 2,680 units less than had been projected last January when the annual government forecast stated it would be 179,250 stations on Dec. 31.

Not only that, there's no end in sight for the crunch. The government forecast for 1984 is that the total will shrink anew to 130,000 stations by Dec. 31. That would be roughly equal to the population in the early 1930s.

The current situation is tinged with irony for *NPN*, which observed its 75th anniversary in February. During most of the magazine's history, the service station story was one of near-continual building, with competing outlets and brands on all four corners of many intersections.

There was almost a building frenzy during the 1950s and 1960s when the net additions were counted in the thousands. Today, it's the other way around, with the population going down at a faster rate than it grew.

All is not gloom in this negative report, however.

For example, there is no shortage of service stations, even though the number of automobiles, trucks and buses on the road is at an all-time high—more than 165-million vehicles now, and increasing annually.

The stations that are disappearing are generally on the smaller side—30,000 to 40,000 gal. month. In their places are being built the big super-stations—the 100,000- to 200,000-gal./month-plus pumpers that are more economical to operate and frequently are on a seven-day, 24-hour basis. Most are self-service stations, which seem to have greater appeal to motorists everywhere.

The industry is spending billions of dollars on new marketing facilities and programs as the majors and the minors reposition themselves and intensify their competition for gasoline gallonage.

McGraw-Hill's annual survey, issued in mid-November, said the oil companies had projected marketing expansion and development expenditures of $2.1-billion in 1983, $2.6-billion in 1984 and $2.8-billion in 1985—a three-year total of $7.5-billion.

These are among the highest investments ever targeted for marketing facilities, and they come in an era of gasoline surpluses, depressed prices and margins, cost-cutting, alcohol additives, and regrouping by all in the marketplaces.

The government report states that dollar sales at service stations slipped slightly in 1983—down a little less than 1% below 1982's total of $104.6-billion for gasoline and oil products and services only.

The 1983 total was put at $104.6-billion. It was far, far below the rosy projection of $114.5 billion that was made last January, however. The economic recession and the sharp drop-off in pump prices were to blame for this.

The 1984 outlook is mildly optimistic. Dollar volume at service stations is expected to exceed $106.2-billion by the end of this year. That would be an increase of 2.5% over 1983, which would parallel other economic forecasts of minor to moderate growth in 1984.

The service station data is compiled by the Bureau of Industrial Economics of the U.S. Department of Commerce as part of its annual report on franchising activities in the U.S. Copies of "Franchising in the U.S. Economy, 1982-1984," are available from the Superintendent of Documents in Washington, D.C.

The Bureau of Industrial Economics is somewhat of a sister organization to the U.S. Bureau of the Census, which also is a section of the Commerce Department. The Census Bureau took its quinquennial survey of retail businesses in 1982, but is still struggling to get the data ready for publication. None of it had been published by May 1 of this year.

The BIE service station totals are in keeping with the standards used by the Census Bureau, i.e., to be classified as a service station the facility must get 50% or more of its income from the sale of gasoline and oil products.

Arbitrarily excluded from these totals, therefore, are the thousands of pumps and stations at convenience stores, mass merchandisers, fleets and other places. The C-store world alone has a population close to 50,000, and it is estimated that almost half of these currently sell gasoline.

Last fall, the *Lundberg Letter* estimated the service station universe at 210,875 units.

The Bureau of Industrial Economics data showed that its service station population declined 5.6% in 1983 and is expected to drop another 4.8% in 1984.

If these percentages are applied to the Lundberg universe, then it logically could mean that the total population at the end of 1983 was down 11,809 stations to 199,066, and will be down 9,555 stations more to 189,511 stations at the end of 1984.

## The Rise and Fall of U.S. Service Stations

| | No. of Stations(a) | | | Sales ($000,000) | | |
|---|---|---|---|---|---|---|
| Year | Total | Company-owned | Franchisee-owned | Total | Company-owned | Franchisee-owned |
| 1984 | 130,000 | 23,400 | 106,600 | $106,175 | $23,400 | $106,600 |
| 1983 | 136,570 | 24,583 | 111,987 | 103,587 | 18,646 | 84,981 |
| 1982 | 144,690 | 26,044 | 118,646 | 106,544 | 19,178 | 87,366 |
| 1981 | 151,250 | 27,225 | 124,025 | 105,145 | 18,926 | 89,219 |
| 1980 | 158,540 | 30,122 | 128,418 | 96,338 | 18,304 | 78,034 |
| 1979 | 164,780 | 31,310 | 133,480 | 71,894 | 13,660 | 58,234 |
| 1978 | 172,300 | 32,737 | 139,563 | 60,884 | 12,177 | 48,707 |
| 1977 | 176,465 | 33,375 | 141,160 | 58,231 | 11,646 | 46,585 |
| 1976 | 186,840 | 37,368 | 149,472 | 53,416 | 10,683 | 42,733 |
| 1975 | 189,480 | 37,896 | 151,584 | 47,387 | 9,477 | 37,910 |
| 1974 | 196,130 | 39,226 | 156,904 | 43,829 | 8,766 | 35,063 |
| 1973 | 215,880 | 47,176 | 172,704 | 37,666 | 7,533 | 30,183 |
| 1972 | 226,459 | 44,200 | 176,259 | 33,656 | 6,812 | 26,844 |
| 1971 | 220,000 | 44,000 | 176,000 | 31,149 | 6,230 | 24,919 |
| 1970 | 222,000 | 44,400 | 177,600 | 29,340 | 5,868 | 23,472 |

(a) As defined by U.S. Census Bureau, stations with 50% or more of their income from sales petroleum products.

## Service Station Population Slips Anew

| | | | | Percent Changes | |
|---|---|---|---|---|---|
| | 1984 | 1983 | 1982 | 1983-84 | 1982-83 |
| Number of establishments | 130,000 | 136,570 | 144,690 | −4.8% | −5.6% |
| Company-owned | 23,400 | 24,583 | 26,044 | | |
| Franchisee-owned | 106,600 | 111,987 | 118,646 | | |
| Total sales of products and services (000,000) | $106,175 | $103,587 | $104,633 | +2.5 | −1.0 |
| Company-owned | 19,112 | 18,646 | 18,834 | | |
| Franchisee-owned | 87,063 | 84,941 | 85,799 | | |

(a) As of Dec. 31 of each year; (b) Service stations as defined by U.S. Census Bureau, i.e., stations with 50% or more of their income being derived from the sale of petroleum products.

Source: "Franchising in the Economy, 1982-84," "Bureau of Industrial Economics, U.S. Department of Commerce, January 1984.

# Service Station Population by States—1984 vs. 1977

**The U.S. Census Bureau surveyed all retail businesses in 1982 but experienced unusual delays in reporting the results.** At *Factbook* presstime, the Bureau said it still hoped to publish its service station data sometime in June or July. The data will be published in *NPN* magazine as soon as it becomes available.

The table below is based on the old 1977 census figures. On a national population basis, it is assumed the overall percentage dipped 5.6% in 1983 and is expected to drop another 4.8% by the end of 1984. But with fewer stations and an improving economy, dollar sales at stations are going up again.

| | Total Gasoline Service Stations | | | | Total Dollar Sales (add 000) | | | |
|---|---|---|---|---|---|---|---|---|
| | 1984(a) | 1983(a) | 1982(a) | 1977(b) | 1984(a) | 1983(a) | 1982(a) | 1977(b) |
| **Alabama** | 2,624 | 2,756 | 2,920 | 3,562 | $1,614,310 | $1,574,937 | $1,590,845 | $81[illegible],443 |
| **Alaska** | 153 | 161 | 171 | 211 | 204,852 | 199,856 | 201,875 | 102,845 |
| **Arizona** | 1,220 | 1,281 | 1,357 | 1,656 | 1,297,961 | 1,266,303 | 1,279,094 | 651,625 |
| **Arkansas** | 1,774 | 1,863 | 1,973 | 2,407 | 990,143 | 965,993 | 975,750 | 495,560 |
| **California** | 10,595 | 11,130 | 11,790 | 14,388 | 11,418,888 | 11,140,379 | 11,252,908 | 5,732,696 |
| Colorado | 1,829 | 1,922 | 2,036 | 2,485 | 1,410,333 | 1,375,935 | 1,389,833 | 708,010 |
| Connecticut | 1,631 | 1,713 | 1,815 | 2,215 | 1,621,531 | 1,581,981 | 1,597,961 | 814,068 |
| Delaware | 321 | 337 | 357 | 435 | 321,709 | 313,862 | 317,033 | 161,511 |
| District of Columbia | 185 | 194 | 205 | 250 | 274,632 | 267,934 | 270,640 | 138,354 |
| Florida | 5,367 | 5,638 | 5,972 | 7,287 | 4,753,568 | 4,637,627 | 4,684,472 | 2,386,463 |
| **Georgia** | 3,731 | 3,919 | 4,151 | 5,066 | 2,047,676 | 1,997,733 | 2,017,912 | 1,350,915 |
| **Hawaii** | 306 | 321 | 340 | 415 | 350,728 | 342,174 | 345,630 | 176,079 |
| **Idaho** | 611 | 642 | 680 | 830 | 444,099 | 433,267 | 437,643 | 222,954 |
| **Illinois** | 5,754 | 6,044 | 6,403 | 7,815 | 6,058,518 | 5,910,749 | 5,970,454 | 3,040,967 |
| **Indiana** | 3,568 | 3,748 | 3,970 | 4,867 | 3,389,957 | 3,307,275 | 3,340,682 | 1,701,885 |
| Iowa | 2,522 | 2,649 | 2,806 | 3,424 | 1,900,404 | 1,854,053 | 1,872,781 | 954,073 |
| Kansas | 1,815 | 1,907 | 2,021 | 2,466 | 1,317,464 | 1,285,331 | 1,298,314 | 661,416 |
| Kentucky | 2,543 | 2,671 | 2,829 | 3,452 | 2,033,063 | 1,983,476 | 2,003,511 | 1,020,672 |
| Louisiana | 2,202 | 2,313 | 2,450 | 2,989 | 1,709,555 | 1,667,859 | 1,684,706 | 858,259 |
| Maine | 687 | 722 | 765 | 933 | 486,036 | 474,181 | 478,971 | 244,009 |
| **Maryland** | 1,815 | 1,907 | 2,020 | 2,465 | 2,410,058 | 2,351,276 | 2,375,026 | 1,209,948 |
| **Massachusetts** | 2,859 | 3,003 | 3,181 | 3,882 | 2,568,965 | 2,506,308 | 2,531,624 | 1,289,715 |
| **Michigan** | 4,840 | 5,084 | 5,386 | 6,572 | 5,160,703 | 5,034,832 | 5,085,689 | 2,590,860 |
| **Minnesota** | 2,415 | 2,537 | 2,688 | 3,280 | 2,357,981 | 2,300,469 | 2,323,706 | 1,193,895 |
| **Mississippi** | 1,445 | 1,518 | 1,608 | 1,962 | 904,592 | 882,529 | 891,443 | 454,139 |
| Missouri | 3,690 | 3,876 | 4,106 | 5,008 | 2,981,391 | 2,908,674 | 2,938,055 | 1,496,768 |
| Montana | 712 | 748 | 792 | 968 | 542,123 | 528,900 | 534,242 | 273,166 |
| Nebraska | 1,276 | 1,340 | 1,419 | 1,732 | 1,049,829 | 1,024,223 | 1,034,569 | 529,836 |
| Nevada | 472 | 496 | 525 | 641 | 586,773 | 572,461 | 578,243 | 294,582 |
| New Hampshire | 519 | 545 | 577 | 704 | 472,579 | 461,053 | 465,710 | 237,251 |
| **New Jersey** | 3,940 | 4,139 | 4,384 | 5,350 | 3,592,606 | 3,504,981 | 3,540,385 | 1,803,619 |
| **New Mexico** | 1,023 | 1,075 | 1,139 | 1,389 | 729,670 | 711,873 | 719,094 | 366,336 |
| **New York** | 5,810 | 7,153 | 7,577 | 9,245 | 5,764,326 | 5,623,733 | 5,680,538 | 2,893,091 |
| **North Carolina** | 4,254 | 4,468 | 4,733 | 5,775 | 2,709,187 | 2,643,109 | 2,669,807 | 1,360,111 |
| **North Dakota** | 506 | 532 | 564 | 687 | 401,372 | 391,582 | 395,537 | 201,503 |
| Ohio | 6,495 | 6,822 | 7,227 | 8,820 | 6,208,296 | 6,056,874 | 6,118,055 | 3,116,790 |
| Oklahoma | 2,255 | 2,369 | 2,509 | 3,063 | 1,305,291 | 1,273,455 | 1,286,318 | 655,239 |
| Oregon | 1,611 | 1,692 | 1,792 | 2,185 | 1,304,264 | 1,272,453 | 1,285,306 | 654,788 |
| Pennsylvania | 6,624 | 6,958 | 7,371 | 8,994 | 5,690,780 | 5,511,980 | 5,608,061 | 2,856,978 |
| Rhode Island | 512 | 538 | 570 | 697 | 431,175 | 420,659 | 424,908 | 216,467 |
| **South Carolina** | 2,210 | 2,321 | 2,459 | 3,001 | 1,438,473 | 1,402,511 | 1,416,678 | 721,715 |
| **South Dakota** | 633 | 665 | 704 | 861 | 479,573 | 467,876 | 472,602 | 240,764 |
| **Tennessee** | 3,011 | 3,163 | 3,351 | 4,090 | 2,292,174 | 2,236,267 | 2,258,856 | 1,150,756 |
| **Texas** | 9,389 | 9,862 | 10,447 | 12,747 | 6,860,724 | 6,693,389 | 6,760,999 | 3,444,333 |
| **Utah** | 846 | 889 | 942 | 1,149 | 731,270 | 713,434 | 720,640 | 367,125 |
| Vermont | 397 | 417 | 442 | 540 | 277,966 | 271,186 | 273,925 | 139,550 |
| Virginia | 2,940 | 3,088 | 3,271 | 3,992 | 2,950,256 | 2,878,299 | 2,907,373 | 1,481,137 |
| Washington | 2,212 | 2,323 | 2,461 | 3,005 | 1,886,309 | 1,840,301 | 1,858,890 | 946,996 |
| West Virginia | 1,339 | 1,407 | 1,490 | 1,818 | 982,756 | 958,786 | 968,471 | 493,332 |
| Wisconsin | 2,977 | 3,127 | 3,313 | 4,043 | 2,490,263 | 2,429,525 | 2,454,066 | 1,250,204 |
| Wyoming | 475 | 499 | 529 | 647 | 427,172 | 416,753 | 420,963 | 214,456 |
| **Total** | **129,940** | **136,492** | **144,588** | **176,465** | **$111,634,324** | **$108,910,656** | **$110,010,794** | **$56,468,144** |

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(a) Projections by NPN based on census data and other Commerce Department reports

(b) U.S. Census Bureau Retail Trades Census, 1977

Source: NPN projections based on Commerce Department data

# Retail Marketing: A Study in Diversity

**Modern oil marketing is almost chaotic these days compared to the way it used to be, according to an early 1984 Lundberg Survey report which covered 16,810 service stations in all 50 states.**

Here are some of the highlights—remembering, of course, that in the early 1970s, virtually all majors were full-service at the pumps, most had service bays and diesel fuel was strictly a truck-stop product:

- Of the stations surveyed, only 13.1% now are full service, while 40.9% are self-service and 46.0% are split-island. But that's only half the story. The breakdown [See chart.] shows that of the majors surveyed, 14.8% were full-service, 25.0% self-service, and 60.2% split-island. The non-majors were 8.7% full-service, 81.4% self-service and 9.9% split-island.

The diversity within the ranks is literally amazing. Citgo and Arco, at 77.0% and 71.9% respectively, are far and away the leaders among the surveyed companies in self-service. On the other hand, Getty at 47.0% and Sunoco at 43.4% still have more full-service stations than the others surveyed. The fence-straddling split-islanders include Chevron at 84.2%, Exxon at 73.9%, Shell at 71.5%, Mobil at 69.7%, Union at 69.3% and Amoco at 62.7%.

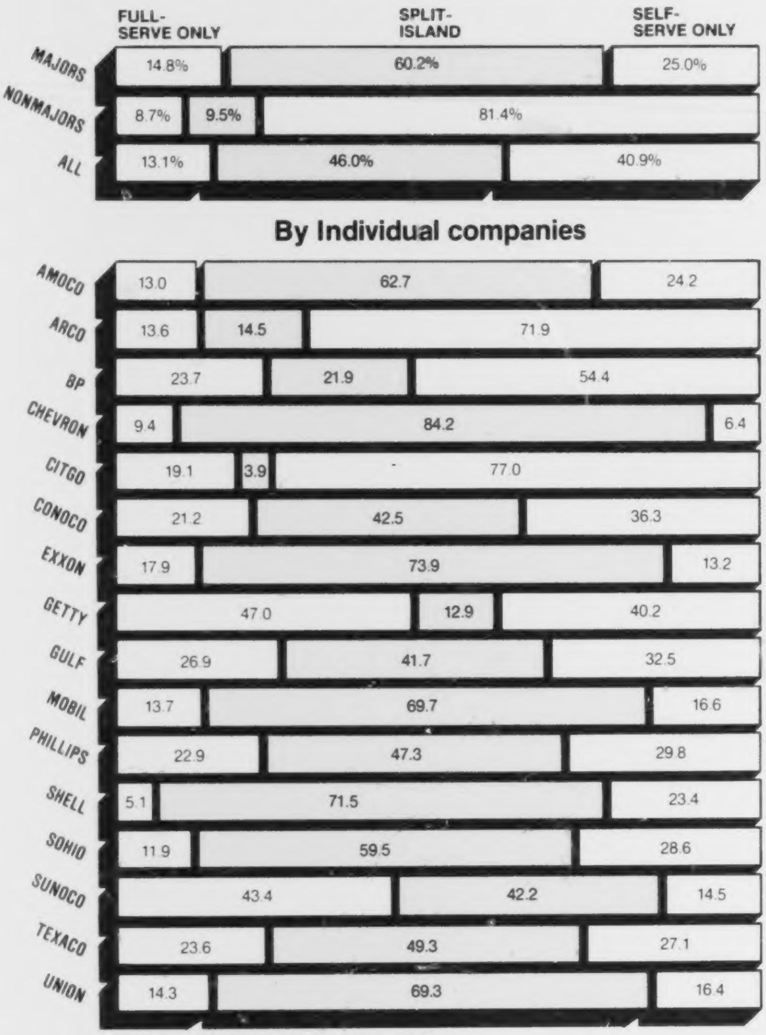
- There are many variations in the grades of gasolines the surveyed companies sell at their stations.

For example: Only 10% of the companies still sell leaded premium gasoline—the majors 8.0% as a group and the non-majors 15.8% as a group. But 72.6% of the companies sell the three key grades—leaded regular, unleaded regular and unleaded premium. The strongest majors in the three-grade configuration were Standard of Ohio at 100%, Shell at 98.2% and Chevron at 96.3%. Also in the 90%-plus category were Amoco, Arco, BP, Exxon, Gulf, Mobil and Sunoco.

On the other side of the spectrum there were five companies that were substantially two-graders—"Union and Getty, because they decided to go that way, and Phillips, Conoco and Citgo, mainly because their jobbers did," according to Lundberg.

- Diesel fuel's luster seems to be fading with respect to predictions that were made for it in the mid-to-late '70s. Of the surveyed stations, only 17.7% handled diesel fuel—15.4% in the major category, 23.4% in the non-major. The biggest supporters were Phillips at 46.9% of its stations, Texaco at 36.2%, Gulf at 35.7% and Conoco at 34.5%. Least interested were Shell at 4.9%, Arco and Mobil at 6.3%, BP at 8.8% and Getty at 9.8%.

**How the Top Companies Market Gasoline**



Source: Lundberg Survey, Inc., January 1984

- There are a lot more service bays than most people realize. Says Lundberg: "Many of these bays are not being utilized efficiently, but there are impressively large numbers of them still out there in the service station networks."

The study indicated 57.6% of the companies surveyed have service bays, of which the major stations have 72.1% and the non-majors 20.9%. Here again, company-by-company differences are almost dramatic. Union, Chevron and Mobil are in the 80%-plus category; Exxon, Phillips, Sohio and Texaco in the 70% group; and Amoco, Arco, Getty, Shell and Sunoco in the 60%-plus class. At the short end, BP at 5.3% and Citgo at 23%.

- Of the ancillary businesses—C-stores, car washes and truckstops—the latter two have been around longer, but the C-stores have come on faster. The all-industry figure for C-stores is 7.5%, but the non-majors tower above the majors in this category in their interest—16.9% to 3.8%.

Leader of them all is Citgo with 32.2% of its stations involved with C-stores. Arco is second with 14.8% and Gulf, third with 8.3%. Professing as little interest as possible are Exxon at 0.7%; Getty at 0.8%; Sunoco at 0.9%; Chevron at 1.9%; Union at 1.9% and Mobil at 2.0%.

Says Lundberg: "The face of gasoline marketing has become complicated and interesting in response to economic changes. Since many challenges remain, further diversity seems likely."

# Self-Service Gains, Unleaded Surges Into Lead

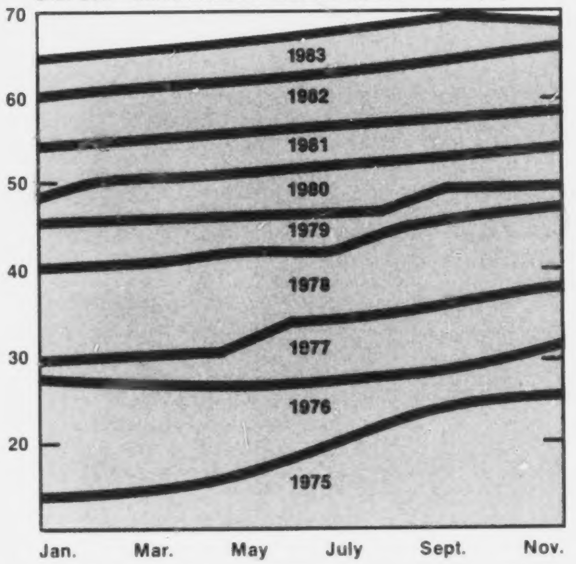
**In the past few years, self-service has become far and away the most popular way to market gasoline in the U.S.**

An Amoco Oil Co. internal report [below] says self-service is preferred by about 70% of motorists nationwide in 1983. Self-serve popularity has never flagged since it passed the 50% mark in 1980. The Amoco figures come from a regular poll of its motorist/customers.

*Lundberg Letter* figures [bottom], which are based on sales volume, were even higher. Lundberg indicates that self-service accounted for nearly 73% of sales by the end of last year.

A number of things were changing in marketing in 1983, according to Lundberg. For the first time, unleaded regular won the volume race with 43.0% to leaded regular's 42.9%. Premium unleaded continued to gain, and finished with 13.4% of the market.

U.S. Self—Serve Motorist Gasoline Market Share (%)



| State(a) | % |
|---|---|
| Utah | 91 |
| Arizona | 86 |
| New Mexico | 86 |
| Colorado | 85 |
| South Carolina | 83 |
| Texas | 83 |
| Washington | 82 |
| California | 81 |
| Nevada | 81 |
| Wisconsin | 81 |
| Florida | 80 |
| North Carolina | 80 |
| Georgia | 79 |
| Idaho | 79 |
| Oklahoma | 78 |
| Virginia | 78 |
| Illinois | 77 |
| Montana | 77 |
| Indiana | 76 |
| Louisiana | 76 |
| Michigan | 74 |
| Tennessee | 74 |
| Arkansas | 73 |
| D.C. | 73 |
| Iowa | 73 |
| Maryland | 73 |
| Missouri | 73 |
| Minnesota | 71 |
| Alabama | 70 |
| Delaware | 70 |
| Mississippi | 70 |
| Ohio | 70 |
| Wyoming | 69 |
| Kansas | 65 |
| Kentucky | 65 |
| Nebraska | 65 |
| South Dakota | 65 |
| North Dakota | 62 |
| West Virginia | 62 |
| Connecticut | 57 |
| Pennsylvania | 52 |
| New Hampshire | 48 |
| Rhode Island | 48 |
| New York | 47 |
| Vermont | 38 |
| Massachusetts | 36 |
| Maine | 27 |

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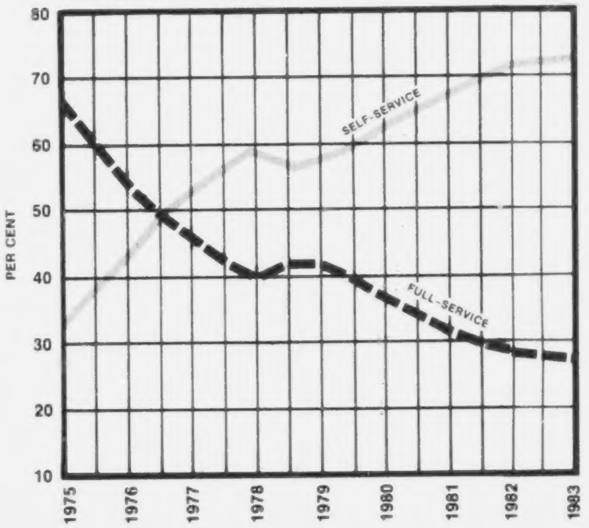
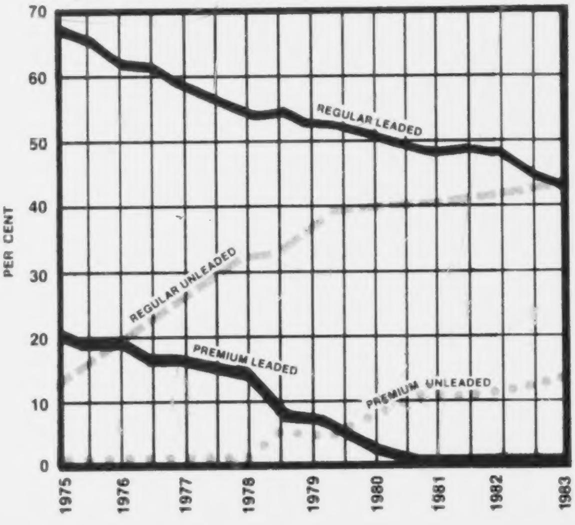
(a)Self-service is illegal in New Jersey and Oregon.
Source: Amoco Oil Co., January 1984.

SELF-SERVICE VERSUS FULL-SERVICE, 1975-1983



Source: Lundberg Letter, December 1982

HOW GASOLINE MARKET HAS CHANGED, 1975-1983



Source: Lundberg Letter, December 1982

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16
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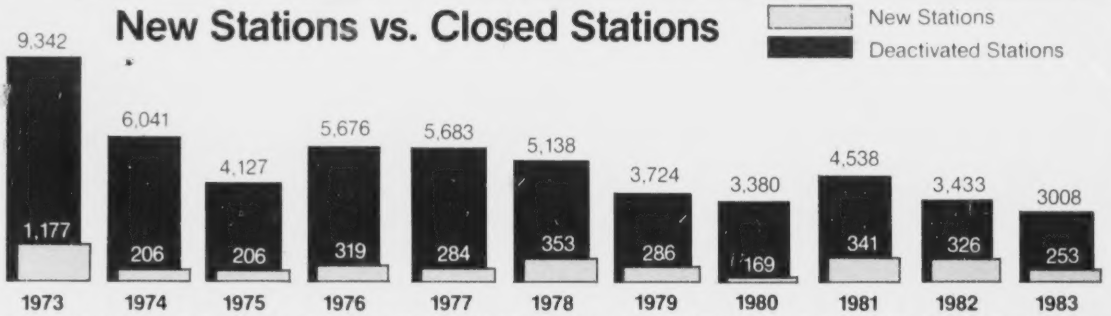
# Service Station Shrinkage Slowing?

**There are signs that the continuing shrinkage in the national service station population may be nearing an end. The national total, for example, indicates that the reduction in 1984 will be around 6,000 outlets. That's a lot, of course, but it's not nearly as many as had been passing out of the picture annually in recent years.**

Data collected by American Petroleum Institute from almost a score and a half of the leading marketing companies shows that the deactivation rate for stations is definitely slowing. In 1983, the number of stations shut down by these companies was barely over 3,000—the lowest this total has been since retrenchment set in after the oil embargo of 1972-73. In 1973, it will be recalled, the top companies alone shuttered well over 9,000 stations.

But while deactivations declined, so did new construction—i.e., construction from the ground up. New stations built dropped down 73 to only 253 in 1983—the lowest that number has been since 1973-74. It must be remembered that this survey takes into account only those stations that are built on completely new sites—it does not include rehabs or new stations that are built on old sites as replacements.


New Stations vs. Closed Stations

API definitions: A service station is defined as a retail outlet at which 50% of the dollar volume is from gasoline and related products; a newly constructed outlet is defined as one that has been erected completely on vacant land or is new on the site. This category does not include rebuilds. Permanently deactivated outlets are those where equipment and identification have been removed, and where re-opening as a service station is no longer contemplated.

Source: American Petroleum Institute, New Construction Report, May, 1984.

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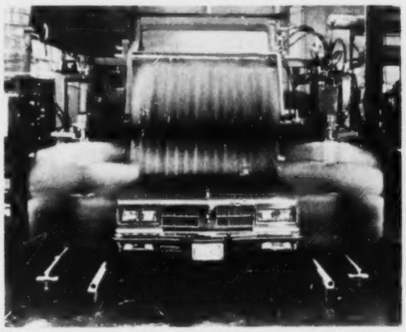

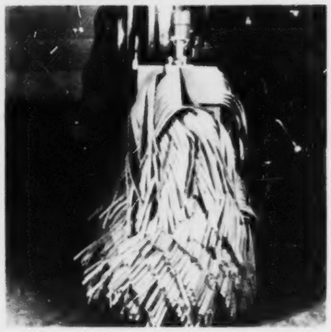

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Owner ______ Tel ( ) ______

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NATIONAL MARKETING FOR nu✦STAR CAR WASH SYSTEMS
5553 XERXES AVE. SO. • MINNEAPOLIS, MN 55410
612/929-2639

# Business at Service Stations

## Dollar Volume

| Year | No. of service stations(b) | Total sales (add $000,000,000) | Avg. per station (add $000) |
|---|---|---|---|
| **1984** | **130,000(a)** | **$106.2** | **$817.0** |
| 1983 | 136,570(a) | 103.6 | 958.0 |
| 1982 | 144,690(a) | 106.2 | 733.0 |
| 1981 | 151,250(a) | 101.7 | 672.4 |
| 1980 | 158,540(a) | 96.3 | 608.0 |
| 1979 | 164,790(a) | 70.9 | 430.0 |
| 1978 | 172,300(a) | 60.9 | 353.0 |
| 1977 | 176,465(b) | 56.5 | 320.0 |
| 1976 | 186,400(a) | 48.0 | 257.0 |
| 1975 | 189,480(a) | 43.8 | 232.0 |
| 1972 | 226,459(a) | 33.7 | 148.8 |

---

(a) Franchising in the Economy 1982-84, U.S. Department of Commerce; data are as of the end of the year.

(b) Bureau of Census definition of gasoline service stations: 50% or more of dollar volume comes from the sale of petroleum products.

## Product Sales, Passenger Cars

| | | Gasoline | | Motor oil | |
|---|---|---|---|---|---|
| Year | Privately owned passenger cars (add 000) | Avg. gal. per car | Sales (add 000,000 gal.) | Avg. qt. per year | Sales (add 000,000 qt.) |
| **1984** | **126,000** | **545** | **68,670** | — | — |
| 1983 | 125,382 | 548 | 68,709 | — | — |
| 1982 | 123,697 | 561 | 69,394 | 7.3 | 907 |
| 1981 | 123,462 | 581 | 71,731 | 7.3 | 909 |
| 1980 | 121,723 | 603 | 73,399 | 7.3 | 907 |
| 1979 | 120,248 | 664 | 79,845 | 7.3 | 880 |
| 1978 | 116,534 | 715 | 83,760 | 7.6 | 921 |
| 1977 | 113,696 | 706 | 80,269 | 7.9 | 900 |
| 1976 | 110,188 | 711 | 78,344 | 8.0 | 887 |
| 1975 | 106,712 | 712 | 75,979 | 9.5 | 1,014 |
| 1972 | 96,567 | 755 | 72,908 | 10.0 | 966 |

Source: Federal Highway Administration through 1981; NPN estimates for 1982 and thereafter.

# Station Customers

| | | Privately owned passenger cars | | Households owning cars | | Licensed drivers | | Women drivers | |
|---|---|---|---|---|---|---|---|---|---|
| Year | No. of service stations | Total (add 000) | Avg. per station | Total (add 000,000) | Avg. per station | Total (add 000,000) | Avg. per station | Total (add 000,000) | Avg. per station |
| **1984** | **130,000** | **126,000** | **969.2** | **74.0** | **569.2** | **153.0** | **1,176.9** | **72.8** | **560.0** |
| 1983 | 136,570(a) | 125,382 | 918.1 | 73.0 | 534.5 | 152.0 | 1,112.9 | 72.3 | 529.4 |
| 1982 | 144,690(a) | 124,821 | 862.7 | 72.0 | 497.6 | 149.1 | 1,030.5 | 70.4 | 486.6 |
| 1981 | 151,250(a) | 123,462 | 816.3 | 70.0 | 460.5 | 147.0 | 969.0 | 69.2 | 457.5 |
| 1980 | 158,540(a) | 121,723 | 767.8 | 67.2 | 423.8 | 145.3 | 916.7 | 68.1 | 429.5 |
| 1979 | 164,790(a) | 120,248 | 731.1 | 65.9 | 400.0 | 143.3 | 868.3 | 66.8 | 403.5 |
| 1978 | 172,300(a) | 116,534 | 676.3 | 64.8 | 375.0 | 140.8 | 817.1 | 65.3 | 379.0 |
| 1977 | 176,465(a) | 113,696 | 644.3 | 63.3 | 365.5 | 138.4 | 784.4 | 63.7 | 361.0 |
| 1976 | 186,400(a) | 110,188 | 591.1 | 62.0 | 332.6 | 130.3 | 689.4 | 57.9 | 306.3 |
| 1975 | 189,480(a) | 106,712 | 563.2 | 60.5 | 319.3 | 127.8 | 662.2 | 56.8 | 294.3 |
| 1972 | 226,459(b) | 96,567 | 426.4 | 52.8 | 232.2 | 118.4 | 522.8 | 52.6 | 232.3 |

---

(a) Franchising in the Economy 1982-84, Department of Commerce.

(b) Bureau of Census definition of gasoline service stations: 50% or more of dollar volume comes from the sale of petroleum products.

Source: Based on data from Motor Vehicle Mfgs. Assn., Federal Highway Administration, and NPN estimates for 1982, 1983 and 1984.

# How Stations Rank in Sales (Billions of Dollars)

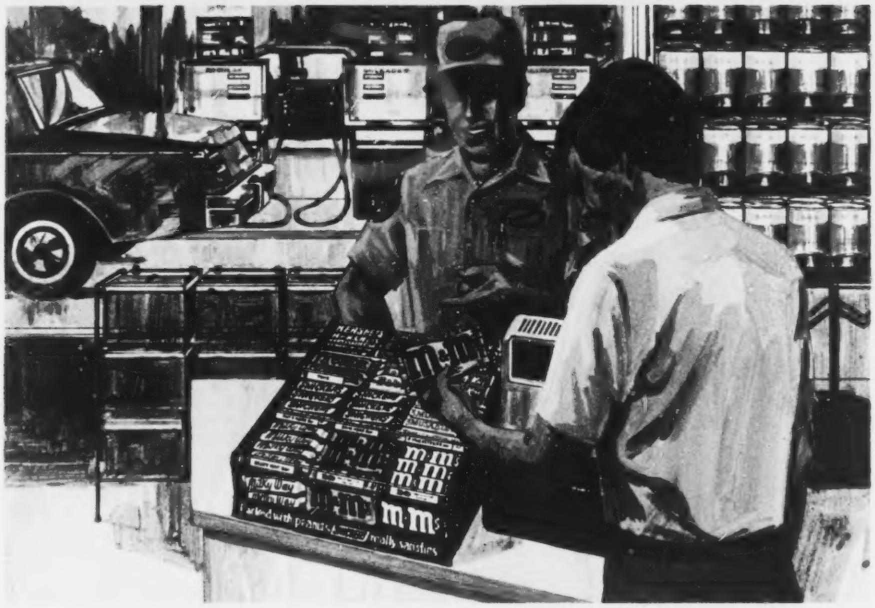
| | 1983 | % Change '83-'82 | 1982 | % Change '82-'81 | 1981 | % Change '81-'80 | 1980 | % Change '80-'79 |
|---|---|---|---|---|---|---|---|---|
| All Retail Stores | $1,173.2 | 9.0% | $1,075.6 | 3.5% | $1,038.8 | 9.1% | $951.9 | 6.4% |
| Food Group | 263.2 | 4.1 | 252.8 | 6.4 | 237.6 | 9.6 | 217.0 | 10.8 |
| Automotive Group | 221.2 | 21.3 | 182.3 | 0.8 | 180.7 | 11.3 | 162.3 | (8.5) |
| General Merchandise | 140.6 | 7.1 | 131.3 | 3.0 | 127.5 | 8.8 | 117.2 | 6.8 |
| Eating and Drinking Places | 119.8 | 11.5 | 107.4 | 14.1 | 94.1 | 9.7 | 85.8 | 7.8 |
| **Gasoline Service Stations** | **104.5** | — | **104.6** | — | **101.7** | **8.7** | **93.6** | **27.9** |
| Apparel Group | 54.8 | (8.7) | 60.0 | 25.5 | 47.8 | 7.7 | 44.4 | 4.7 |

Source: Survey of Current Business, Department of Commerce, Vol. 64, No. 2, February, 1984.

# Personal Consumption Expenditures

| | (Billions of Dollars) | | | | | Seasonally Adjusted at Annual Rate—1983 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1983 | % Change '83-'82 | 1982 | % Change '82-'81 | 1981 | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. |
| Total Expenditures | $2,158.6 | 8.4% | $1,991.9 | 7.0% | $1,843.2 | $2,073.0 | $2,147.0 | $2,181.0 | $2,233.1 |
| Durable Goods | 278.6 | 13.9 | 244.5 | 3.5 | 234.6 | 258.5 | 277.7 | 282.0 | 295.2 |
| Automobiles | 132.8 | 20.8 | 109.9 | 7.7 | 98.6 | 118.4 | 133.8 | 135.6 | 143.2 |
| Furniture | 101.8 | 8.9 | 93.5 | (0.7) | 93.4 | 97.3 | 100.8 | 102.9 | 106.4 |
| Other Durable | 44.0 | 7.1 | 41.1 | 2.6 | 42.6 | 42.9 | 43.1 | 44.3 | 45.7 |
| Nondurable Goods | 804.3 | 5.7 | 761.0 | 3.8 | 734.5 | 771.1 | 799.6 | 814.8 | 825.9 |
| Food | 422.5 | 14.2 | 369.9 | 6.0 | 375.3 | 411.7 | 419.6 | 426.4 | 432.4 |
| Clothing and Dress | 125.6 | 5.5 | 119.0 | 3.5 | 114.6 | 120.0 | 126.4 | 125.1 | 130.9 |
| **Gasoline and Oil** | **90.6** | **(1.0)** | **91.5** | **(3.0)** | **96.8** | **87.3** | **90.3** | **93.1** | **91.6** |
| Other Nondurable goods | 165.7 | 7.9 | 153.5 | NA | NA | 158.1 | 168.3 | 170.2 | ~~171.1~~ |
| Fuel Oil and Coal | 20.9 | — | 20.0 | 10.7 | 19.7 | 17.1 | 21.2 | 23.0 | 21.6 |
| Other Nondurable | 144.8 | 8.5 | 133.5 | 3.0 | 147.9 | 140.4 | 142.1 | 147.2 | 149.5 |
| Services | 1,075.7 | 9.1 | 986.4 | 10.6 | 874.1 | 1,037.4 | 1,069.7 | 1,083.5 | 1,112.0 |

Source: Survey of Current Business, Department of Commerce, Vol. 64, No. 1, January, 1984.



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# Convenience Store Growth Skyrockets in '83

**Aided by normal growth and by reassessment of its population, the convenience store industry took on surprisingly broader dimensions in 1983.**

By the end of the year, according to John F. Roscoe, an industry analyst whose "Dollars Per Day Survey of the Convenience Store Industry" is winning increasing recognition, 59% of C-stores were selling gasoline, moving an average of 1,101 gal. of gasoline per day per store, and commanding 12.09% of the national market.

Not only that, he says, by the end of 1985 the growth will be even more phenomenal—he expects C-stores to be selling more than 20% of the gasoline vended across the nation.

By way of comparison, all this growth has taken place in little more than a decade.

There were only 1,500 C-stores in the country in the early 1960s, according to the National Assn. of Convenience Stores. Gasoline sales were so insignificant that no one kept track.

Through 1981, the C-store industry loosely estimated its population at "around 35,000 to 40,000"—no one was sure. But last year, the NACS and the key industry publications all came to the conclusion that the population currently is in excess of 51,000 stores. This 15,000-store increase thus inflated the 1983 total and raised percentage comparisons almost disproportionally in looking back at the earlier years.

Roscoe's first survey, made in 1974, estimated that only one out of five C-stores were selling gasoline then. In 1983, he calculates, six out of 10 were selling motor fuels—all grades, and diesel too.

One C-store chain, Southland Corp., is the nation's largest independent gasoline marketer. In 1983, it bought a refinery and most of the marketing apparatus of Cities Service from Occidental Petroleum. Southland sold well over 1.5-billion gal. of gasoline in 1983 through its more than 3,000 stores.

Getting hard numbers on how many jobbers are in the C-store business is difficult. But Mike Scanlon of the National Oil Jobbers Council estimates that 40% of the council's jobber members own C-stores. Between 1980 and 1982, he says, the number of jobber/members owning C-stores swelled from 7,500 to almost 9,000. As a matter of fact, he says, just about all of the members of NOJC carry and sell items that would not normally fall into the category of petroleum products or related TBA items.

The federal government also makes some studies and projections on convenience stores and gasoline operations. But the federal study limits itself to franchised establishments. Thus, its totals reflect only about 30% to 35% of the 51,000 population that all other sources generally credit the industry with having.

The latest government report (see table) confirms that the trend is upward and that sales are booming. This report projects sales of $10.2-billion for 15,000 franchised stores in 1983, and $11.3-billion for 15,818 franchised stores in 1984.

Roscoe's report basically covers the top 10 publicly owned chains and he noted that in 1982, the 10 public chains sold 2.3-billion gal. of gasoline, which was 2.36% of the 98.5-billion gallons vended for highway use.

The entire C-store universe sold 12.9% of the gasoline sold in the U.S. in 1982, and Roscoe estimates that in 1985 20% of gasoline sales will be through this type of unit. In 1976, only 1% of the total gasoline sold in the United States was sold through convenience stores.

In his annual ranking of the 10 stores used in his survey, Roscoe—who owns a small chain in California—gave first place to 415-store Shop & Go, of Mango, Fla. Second place went to Circle K, Phoenix, Ariz., 1,221 stores; third place, Southland Corp., Dallas, Texas, 7,165 stores; fourth place, National Convenience Stores, Houston, Texas, 1,012 stores; and fifth place, Lil' Champ Food Stores, Jacksonville, Fla., 170 stores.

The 10 chains had a total of 12,276 stores, of which 6,029 sold gasoline. The 10 added 480 gasoline units in 1982, Roscoe says.

## Dollars Per Day Survey

| Company | # of Gasoline Units | Gal. Sold in 1982 (Add 000) | Avg. Gal. Sold per Day per Unit | Gasoline Margin per Gal. | % of Sales Contributed by Gasoline |
|---|---|---|---|---|---|
| Shop & Go | 286 | 74,000 | 689 | 3.8c | 33.9% |
| Circle K | 798 | 255,200 | 886 | N.A. | 38.4% |
| Southland | 2,827 | 1,156,000 | 1,185 | N.A. | 25.3% |
| Nat'l Convenience | 695 | 231,600 | 991 | 6.2c | 42.7% |
| Lil' Champ | 82 | 19,444 | 722 | 3.4c | 31.0% |
| Li'l General | 208 | 43,912 | 580 | N.A. | 29.9% |
| Mini Mart | 41 | 8,361 | 580 | N.A. | 21.8% |
| Sunshine Jr. | 322 | 66,608 | 580 | N.A. | 51.1% |
| Conna | 289 | 146,000 | 1,387 | N.A. | 39.4% |
| Munford | 481 | 327,000 | 1,887 | N.A. | 56.3% |
| **Totals** | **6,029** | **2,328,127** | **1,101** | | |

Source: John F. Roscoe, 13th annual Dollars-per-Day Survey—1984.

## Ten-Year Box Score on Growth

| Survey Year | No. of Stores | Net Growth | No. with Gasoline Units | Gasoline Units Added in Year | % of Stores with Gasoline Units |
|---|---|---|---|---|---|
| 1983 (a) | 12,276 | — | 6,029 | 480 | 49.11% |
| 1982 | 12,400 | 107 | 5,799 | 393 | 46.76 |
| 1981 | 12,445 | 205 | 5,533 | 442 | 44.45 |
| 1980 | 13,167 | 247 | 5,630 | 447 | 42.76 |
| 1979 | 12,920 | 313 | 5,153 | 569 | 39.88 |
| 1978 | 12,597 | 644 | 4,584 | 792 | 36.38 |
| 1977 | 11,953 | 360 | 2,792 | 959 | 31.72 |
| 1976 | 11,356 | 672 | 2,786 | 557 | 24.53 |
| 1975 | 10,143 | 928 | 2,147 | 194 | 21.16 |
| 1974 | 9,258 | 1,042 | 1,964 | — | 21.21 |

(a) Ten chains in this survey versus 11 chains in the previous study.
Source: 13th annual Dollars-Per-Day Survey, John F. Roscoe, 1984.

## Government Franchise Projections

| Item | 1982 | 1983 | 1984 | Percent Changes 1982-83 | Percent Changes 1983-84 |
|---|---|---|---|---|---|
| Total number of establishments | 15,818 | 15,086 | 15,867 | - 4.6 | 5.2 |
| Company-owned | 9,517 | 8,436 | 8,821 | -11.4 | 4.6 |
| Franchisee-owned | 6,301 | 6,650 | 7,046 | 5.5 | 6.0 |
| Total sales of products and services ($000) | 9,817,511 | 10,176,635 | 11,278,850 | 3.7 | 10.8 |
| Company-owned | 6,119,318 | 6,094,418 | 6,760,169 | - 0.4 | 10.9 |
| Franchisee-owned | 3,698,193 | 4,082,217 | 4,518,681 | 10.4 | 10.7 |

## Distribution by Establishments—1982

| Size Groups | Franchising Companies Number | Establishments Number | Establishments % | Sales ($000) | Sales % |
|---|---|---|---|---|---|
| **Total** | **30** | **15,818** | **100.0** | **9,817,511** | **100.0** |
| 1001 and Greater | 3 | 9,161 | 57.9 | 6,840,459 | 69.7 |
| 501 - 1000 | 4 | 3,641 | 23.0 | 1,617,906 | 16.5 |
| 151 - 500 | 7 | 2,349 | 14.9 | 1,092,488 | 11.1 |
| 51 - 150 | 6 | 484 | 3.1 | 175,864 | 1.8 |
| 11 - 50 | 7 | 165 | 1.0 | 81,654 | 0.8 |
| 0 - 10 | 3 | 18 | 0.1 | 9,140 | 0.1 |

Source: Franchising in The Economy, 1982-84, U.S. Department of Commerce, January 1984.

# Convenience Store Population—1982

| | Population (Add 000) | Households (Add 000) | Super-markets | No. of C-stores | % of C-stores selling gasoline | Population per C-store | Households per C-store |
|---|---|---|---|---|---|---|---|
| **New England** | **12,276** | **4,468** | **1,409** | **1,784** | **36.0** | **6,881** | **2,505** |
| Maine | 1,150 | 416 | 139 | 130 | 35.8 | 8,846 | 3,200 |
| New Hampshire | 971 | 352 | 139 | 116 | 55.9 | 8,371 | 3,035 |
| Vermont | 526 | 189 | 81 | 43 | 71.6 | 12,233 | 4,395 |
| Massachusetts | 5,615 | 2,049 | 566 | 920 | 25.3 | 6,103 | 2,227 |
| Rhode Island | 955 | 352 | 87 | 155 | 34.1 | 6,161 | 2,271 |
| Connecticut | 3,059 | 1,110 | 397 | 420 | 51.0 | 7,283 | 2,643 |
| **Middle Atlantic** | **36,721** | **13,477** | **3,840** | **3,582** | **37.1** | **10,252** | **3,762** |
| New York | 17,408 | 6,470 | 1,807 | 971 | 52.4 | 17,928 | 6,663 |
| New Jersey | 7,323 | 2,612 | 674 | 1,106 | 8.0 | 6,621 | 2,362 |
| Pennsylvania | 11,990 | 4,395 | 1,359 | 1,505 | 48.7 | 7,967 | 2,920 |
| **East North Central** | **42,224** | **15,298** | **5,060** | **4,731** | **32.6** | **8,925** | **3,234** |
| Ohio | 10,919 | 3,994 | 1,349 | 1,971 | 23.7 | 5,540 | 2,026 |
| Indiana | 5,548 | 2,007 | 752 | 579 | 56.0 | 9,582 | 3,466 |
| Illinois | 11,612 | 4,236 | 1,203 | 834 | 29.4 | 13,923 | 5,079 |
| Michigan | 9,338 | 3,321 | 1,044 | 816 | 40.0 | 11,444 | 4,070 |
| Wisconsin | 4,807 | 1,740 | 712 | 531 | 33.9 | 9,053 | 3,277 |
| **West North Central** | **17,404** | **6,475** | **2,287** | **2,635** | **46.6** | **6,605** | **2,457** |
| Minnesota | 4,145 | 1,512 | 495 | 723 | 27.3 | 5,733 | 2,091 |
| Iowa | 2,955 | 1,101 | 370 | 532 | 54.0 | 5,555 | 2,070 |
| Missouri | 4,862 | 1,827 | 672 | 613 | 44.1 | 7,932 | 2,980 |
| North Dakota | 667 | 240 | 81 | 67 | 26.9 | 9,955 | 3,582 |
| South Dakota | 704 | 255 | 89 | 90 | 61.1 | 7,822 | 2,833 |
| Nebraska | 1,621 | 608 | 216 | 196 | 60.2 | 8,270 | 3,102 |
| Kansas | 2,450 | 932 | 364 | 414 | 68.6 | 5,918 | 2,251 |
| **South Atlantic** | **38,333** | **14,067** | **5,145** | **9,695** | **56.1** | **3,954** | **1,451** |
| Delaware | 606 | 218 | 67 | 109 | 41.3 | 5,560 | 2,000 |
| Maryland | 4,350 | 1,554 | 450 | 571 | 32.1 | 7,618 | 2,722 |
| District of Columbia | 613 | 251 | 40 | 108 | 27.8 | 5,676 | 2,324 |
| Virginia | 5,474 | 1,965 | 707 | 1,168 | 40.0 | 4,687 | 1,682 |
| West Virginia | 1,951 | 706 | 268 | 314 | 35.0 | 6,213 | 2,248 |
| North Carolina | 5,915 | 2,117 | 994 | 1,443 | 70.9 | 4,099 | 1,467 |
| South Carolina | 3,182 | 1,083 | 509 | 879 | 72.8 | 3,620 | 1,232 |
| Georgia | 5,735 | 2,024 | 767 | 1,486 | 65.8 | 3,859 | 1,362 |
| Florida | 10,507 | 4,149 | 1,345 | 3,617 | 54.3 | 2,905 | 1,147 |
| **East South Central** | **14,983** | **5,309** | **2,074** | **3,231** | **68.2** | **4,637** | **1,643** |
| Kentucky | 3,716 | 1,320 | 521 | 700 | 77.1 | 5,309 | 1,886 |
| Tennessee | 4,695 | 1,697 | 625 | 1,050 | 61.1 | 4,471 | 1,616 |
| Alabama | 4,006 | 1,424 | 543 | 865 | 75.1 | 4,631 | 1,646 |
| Mississippi | 2,566 | 868 | 385 | 616 | 60.4 | 4,166 | 1,409 |
| **West South Central** | **24,811** | **8,916** | **3,324** | **6,908** | **55.8** | **3,592** | **1,291** |
| Arkansas | 2,379 | 877 | 341 | 430 | 74.4 | 5,533 | 2,040 |
| Louisiana | 4,294 | 1,484 | 553 | 860 | 48.8 | 4,993 | 1,726 |
| Oklahoma | 3,217 | 1,226 | 457 | 1,172 | 67.4 | 2,745 | 1,046 |
| Texas | 14,921 | 5,329 | 1,973 | 4,446 | 52.3 | 3,356 | 1,199 |
| **Mountain** | **12,145** | **4,391** | **1,621** | **2,607** | **54.2** | **4,659** | **1,684** |
| Montana | 802 | 298 | 129 | 220 | 56.4 | 3,646 | 1,355 |
| Idaho | 970 | 344 | 185 | 152 | 61.2 | 6,382 | 2,263 |
| Wyoming | 529 | 192 | 83 | 106 | 47.2 | 4,991 | 1,811 |
| Colorado | 3,055 | 1,156 | 325 | 539 | 46.4 | 5,668 | 2,145 |
| New Mexico | 1,331 | 465 | 175 | 354 | 61.6 | 3,760 | 1,314 |
| Arizona | 3,004 | 1,092 | 396 | 828 | 58.5 | 3,628 | 1,319 |
| Utah | 1,555 | 492 | 205 | 230 | 48.7 | 6,761 | 2,139 |
| Nevada | 899 | 352 | 123 | 178 | 46.1 | 5,051 | 1,978 |
| **Pacific** | **33,674** | **12,641** | **4,188** | **3,527** | **32.6** | **9,547** | **3,584** |
| Washington | 4,566 | 1,754 | 688 | 491 | 43.4 | 9,299 | 3,572 |
| Oregon | 2,734 | 1,060 | 452 | 423 | 24.8 | 6,463 | 2,506 |
| California | 25,026 | 9,404 | 2,867 | 2,462 | 32.1 | 10,165 | 3,820 |
| Hawaii | 917 | 286 | 115 | 74 | 20.3 | 12,392 | 3,865 |
| Alaska | 431 | 137 | 66 | 77 | 32.5 | 5,597 | 1,779 |
| **Total** | **232,571** | **85,042** | **28,950** | **38,700** | **48.6** | **6,010** | **2,197** |

Source: C-Store Business, Research and Data Center, October 1983.

# GAS PRICE SIGNS

---

## Which change prices instantly!

GAS
Self Serve
125 9
127 9
129 9
Self Serve
129 9
Self Serve

Ferranti-Packard's new Gas Price Sign System comes in four different character sizes and is easy to install. It contains a small desktop price control unit and a briefcase-size electronic control cabinet, which allows the operator to change prices instantly without leaving the kiosk.

Ferranti-Packard changeable price signs are visible from up to 900 feet even in direct sunlight.

They're proven on the job to give years of service with low maintenance and operating costs.

And they're backed by 18 years of experience in electromagnetic, light-reflecting display technology for gas pumps and many other products.

So stay competitive. Ask your sign manufacturer for a Ferranti-Packard gas price sign, or write us for our special brochure.

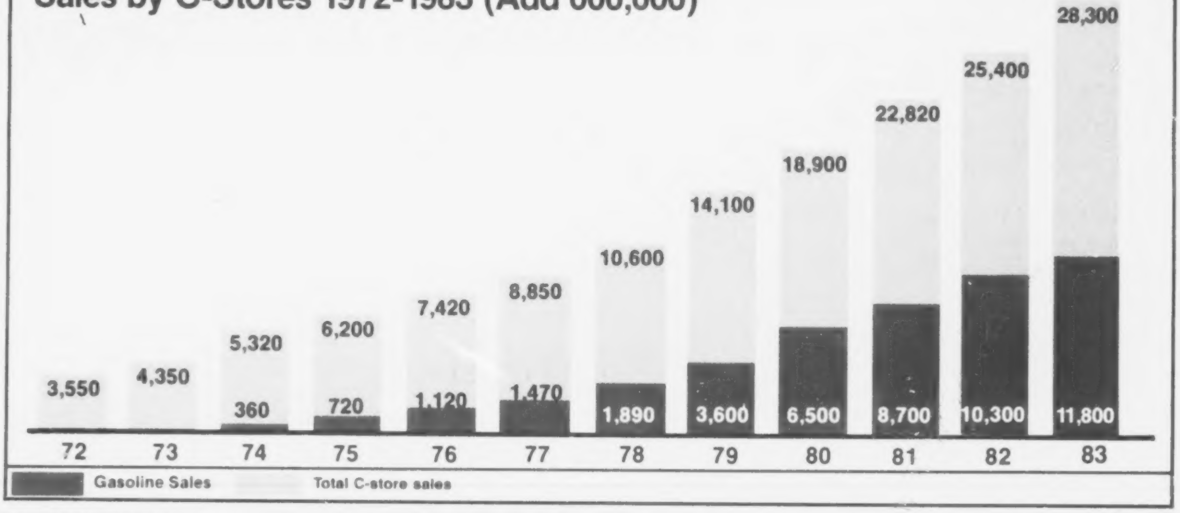
**Ferranti-Packard...On display around the world.**

FERRANTI
Fp
PACKARD

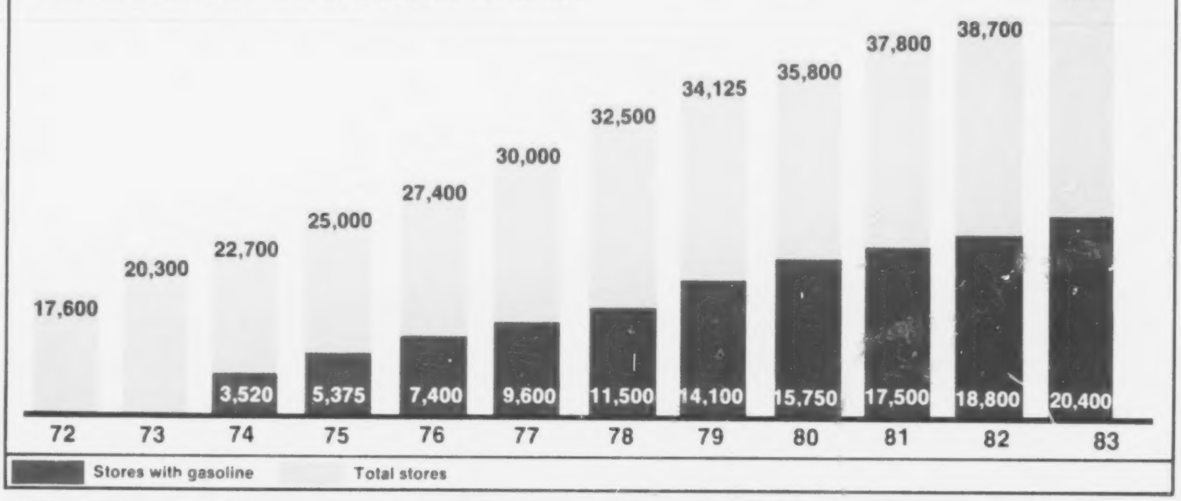
**Ferranti-Packard Electronics Ltd.**

An NEI Company
6030 Ambler Drive
Mississauga, Ontario L4W 2P1 Canada
(416) 624-3020 Telex: 06-961437

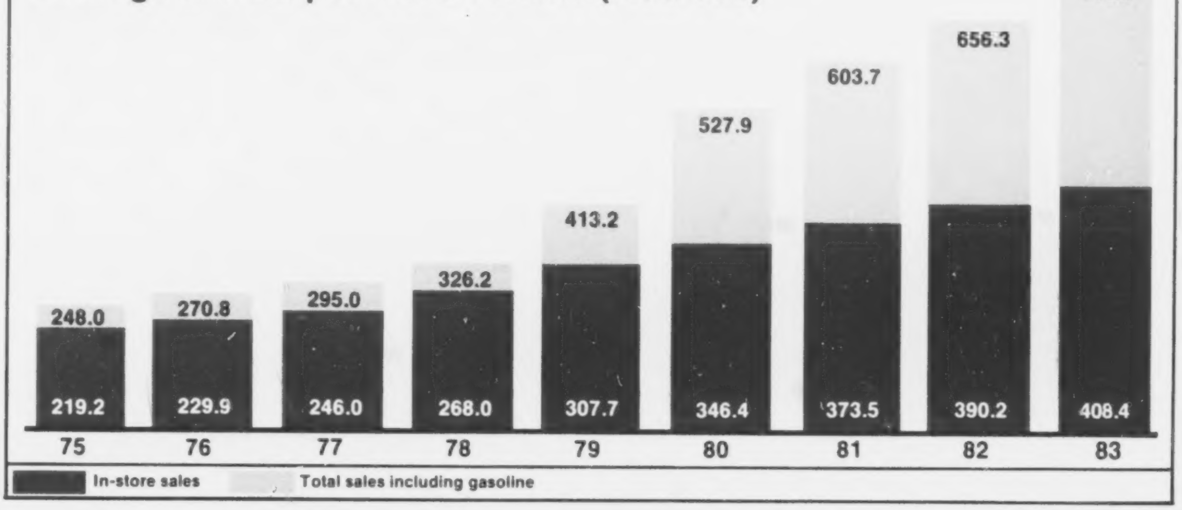
**Sales by C-Stores 1972-1983 (Add 000,000)**



**Total number of C-stores in U.S.**



**Average annual per store volume (Add 000)**



WIN THE
LÖWENBRÄU
Special SWEEPSTAKES
LÖWENBRÄU
WIN A 1985
PORSCHE 911
1 GRAND PRIZE
1 SECOND PRIZE
100 THIRD PRIZES
200 FOURTH PRIZES
Tonight, let it be Löwenbräu.
Porsche 911
Special & Dark Special Beer

# GEAR UP FOR A *Special* PROMOTION

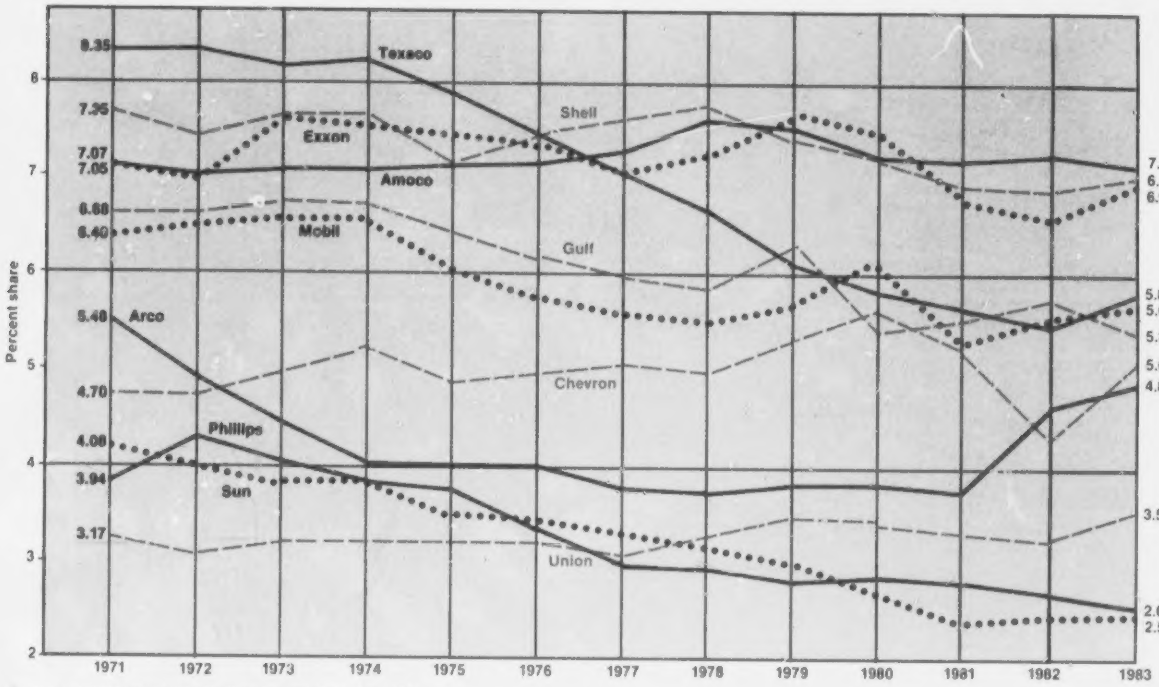
**Lowenbrau presents a block-buster traffic building promotion to increase your sales and profits this summer!**

- Lowenbrau is the second largest selling beer in the high profit super-premium category.
- Lowenbrau teams up with the Lowenbrau Special race car, the newest entry on the IMSA racing circuit, to present the "Lowenbrau Special Sweepstakes".
- "Instant Winner" game pieces will appear in popular consumer and car enthusiast magazines on the newstand in early August. Nearly 62 million readers will see Lowenbrau's Sweepstakes offer in Playboy, Sports Illustrated, People, Sportscar, Autoweek and On Track.
- *Customers will be looking for the "Lowenbrau Special Sweepstakes" display to see if they have already won the Grand Prize, a 1985 Porsche, or other fabulous prizes.*

## Tonight, let it be Löwenbräu.

This sweepstakes is void where prohibited.

Beer Brewed in U.S.A. by The Miller Brewing Company, Mil., WI.



Source: Lundberg Survey, Inc., North Hollywood, Calif., April 1983

# Amoco Retains Share of Market Lead, But No. 2 Shell and No. 3 Exxon Close In

**Even though it lost some market share in 1983, Amoco maintained a slim lead and finished again as the nation's No. 1 gasoline marketer.**

Shell and Exxon held onto second and third place, ending up less than 0.07% apart and only 0.33% behind the leader.

Texaco jumped up two notches, after gaining market share for the first time since 1974. Mobil, Chevron, Union and Sun also gained, and Arco continued its rapid rise.

Lundberg Survey, Inc., which keeps the tabs on gasoline consumption in the various states and on a company-by-company basis, is the prime authority for statistics on market shares. The illustration above shows the share trends over the past 12 years. Another set of illustrations in this share-of-market report puts special focus on the eight leaders over the past four years. [See page 118.]

Lundberg's report for 1983 said Amoco had a 7.23% share of the market for that calendar period. Shell had 6.97% and Exxon 6.90%. Gulf, which had been in fourth place in 1982, fell to sixth in 1983, going by Texaco (fourth) and Mobil (fifth) on the way down. Chevron reversed a two-year decline, but still finished in seventh place. Arco, Union, Phillips and Sun (in order) rounded out the list.

Lundberg also noted that total gasoline consumption increased in 1983 for the first time in five years. 1983's 101,544,495,000 gal. was a 0.84% increase over 1982. The peak year for gasoline consumption was 1978 with around 115,323,000,000 gal. consumed.

Market-share reports are shown in the functional classification developed by Lundberg Survey in 1974. Companies are sorted in six categories identified by Roman numerals I through VI. They are defined as follows:

**I. Integrated Marketers**—Produce, refine, transport, and market in interstate commerce. Recognized in the petroleum industry as major companies in all of the states or regions in which they market with their own brand or brands.

**II. Other Integrated Marketers**—Transport and/or market in interstate commerce. Produce and refine also, but one or the other of these functions may be a less substantial part of the overall operation. Market in more than one state with their own brand or brands or supply private brands.

**III. Suppliers**—Transport and/or market in interstate commerce. May market directly and/or indirectly. May produce and/or refine, but neither function is a substantial part of the overall operation. Distributive functions are supported by exchanges or buying leverage.

**IV. Marketers**—Operate as autonomous entities, are not affiliated with supplying companies, and do not use suppliers' brands, bulk plants, or other facilities. May make accommodation sales to fellow Category IV marketers, but do not normally function as suppliers.

**V. Cooperatives**—Generally serve nonretail ranchers and farmers, although some engage in branded sales with pumps open to the public. May or may not be integrated.

**VI. Miscellaneous and Unidentified**—Unbranded, nonmarketing operations reporting net-taxable gallonages. Also sales unidentified as to category or brand.

National and state reports are based on all known source data for all petroleum marketers in the respective states. The national is an aggregate of the states.

Lundberg Survey reports that data are obtained in a variety of ways, principally from state tax-collecting agencies, but also by direct inquiry.

Lundberg Survey sells state and regional market-share reports by the month on a subscription basis. The company's principal business is retail gasoline surveys, which the firm produces on representative cities across the nation.

# National and Regional Market Shares of Motor Gasoline

## Share of the U.S. Market 1983 Versus 1982

| | National Taxable Sales | | | | National Market Share | | |
|---|---|---|---|---|---|---|---|
| | | | Change | | | | |
| | 1983 (000) | 1982 (000) | (000) | % | 1983 % | 1982 % | Change in Share |
| I Integrated | | | | | | | |
| Amoco | 7,341,781 | 7,368,014 | -26,233 | 0.36 | 7.23 | 7.32 | -0.09 |
| Shell | 7,079,647 | 6,817,396 | 262,251 | 3.70 | 6.97 | 6.77 | 0.20 |
| Exxon | 7,010,358 | 6,796,265 | 214,093 | 3.05 | 6.90 | 6.75 | 0.15 |
| Texaco | 5,894,717 | 5,657,506 | 237,211 | 4.02 | 5.80 | 5.62 | 0.19 |
| Mobil | 5,773,766 | 5,721,607 | 52,159 | 0.90 | 5.69 | 5.68 | 0.00 |
| Gulf | 5,382,735 | 5,819,017 | 436,282 | -8.11 | 5.30 | 5.78 | -0.48 |
| Chevron | 5,143,314 | 4,873,138 | 270,176 | 5.25 | 5.06 | 4.84 | 0.23 |
| Arco | 4,895,085 | 4,671,323 | 223,762 | 4.57 | 4.82 | 4.64 | 0.18 |
| Union | 3,573,944 | 3,333,610 | 240,334 | 6.72 | 3.52 | 3.31 | 0.21 |
| Phillips | 2,645,521 | 2,791,099 | 145,578 | -5.50 | 2.61 | 2.77 | -0.17 |
| Sun | 2,583,367 | 2,663,357 | -79,990 | -3.10 | 2.54 | 2.64 | -0.10 |
| **Total (Top 11)** | **57,324,235** | **56,512,332** | **811,903** | **1.42** | **56.45** | **56.12** | **0.33** |
| Others in Class I | 7,454,497 | 7,502,722 | -48,225 | -0.65 | 7.34 | 7.45 | -0.11 |
| **Total** | **64,778,732** | **64,015,054** | **763,678** | **1.18** | **63.79** | **63.57** | **0.22** |
| II Other Integrated | — | — | — | — | — | — | — |
| III Suppliers | — | — | — | — | — | — | — |
| IV Marketers | — | — | — | — | — | — | — |
| V Cooperatives | — | — | — | — | — | — | — |
| VI Miscellaneous | — | — | — | — | — | — | — |
| **Total (II-VI)** | **36,775,763** | **36,684,337** | **91,426** | **0.25** | **36.21** | **36.43** | **-27.36** |
| **Grand Total U.S.** | **101,554,495** | **100,699,391** | **855,104** | **0.84** | **100.00** | **100.00** | — |

Note: Cities Service is included in Class I for the year 1982 only
Source: Lundberg Survey, Inc

## By PAD Districts

| | PAD Districts Taxable Sales | | | | National Market Share | | |
|---|---|---|---|---|---|---|---|
| | | | Change | | | | |
| | 1983 (000) | 1982 (000) | (000) | % | 1983 % | 1982 % | Change in Share |
| Pad I | | | | | | | |
| Class I (Integrated) | 25,077,027 | 25,580,138 | 503,111 | 2.01 | 24.69 | 25.40 | -0.71 |
| All Other | 11,001,382 | 9,107,620 | 1,893,762 | 17.21 | 10.83 | 9.04 | 1.79 |
| **Total** | **36,078,409** | **35,598,141** | **480,268** | **1.33** | **35.53** | **35.35** | **0.18** |
| PAD 2 | | | | | | | |
| Class I (Integrated) | 16,876,958 | 17,621,906 | 744,948 | 4.41 | 16.62 | 17.50 | -0.88 |
| All Other | 13,950,482 | 12,750,132 | 1,200,350 | 8.60 | 13.74 | 12.66 | 1.08 |
| **Total** | **30,827,440** | **30,854,294** | **26,854** | **0.09** | **30.36** | **30.64** | **-0.28** |
| PAD 3 | | | | | | | |
| Class I (Integrated) | 8,462,733 | 8,594,440 | 131,707 | 1.56 | 8.33 | 8.53 | -0.20 |
| All Other | 6,421,861 | 6,095,820 | 326,041 | 5.08 | 6.32 | 6.05 | 0.27 |
| **Total** | **14,884,594** | **14,925,173** | **40,579** | **0.27** | **14.66** | **14.82** | **0.16** |
| PAD 4 | | | | | | | |
| Class I (Integrated) | 1,482,149 | 1,446,825 | 35,324 | 2.38 | 1.46 | 1.44 | 0.02 |
| All Other | 1,756,515 | 1,868,707 | 112,192 | 6.39 | 1.73 | 1.86 | -0.13 |
| **Total** | **3,238,664** | **3,315,532** | **76,868** | **2.37** | **3.19** | **3.29** | **0.10** |
| Pad 5 | | | | | | | |
| Class I (Integrated) | 12,867,506 | 12,399,297 | 468,209 | 3.64 | 12.67 | 12.31 | 0.36 |
| All Other | 3,628,425 | 3,606,953 | 21,472 | 0.59 | 3.57 | 3.58 | -0.01 |
| **Total** | **16,495,931** | **16,006,250** | **489,681** | **2.97** | **16.24** | **15.90** | **0.35** |

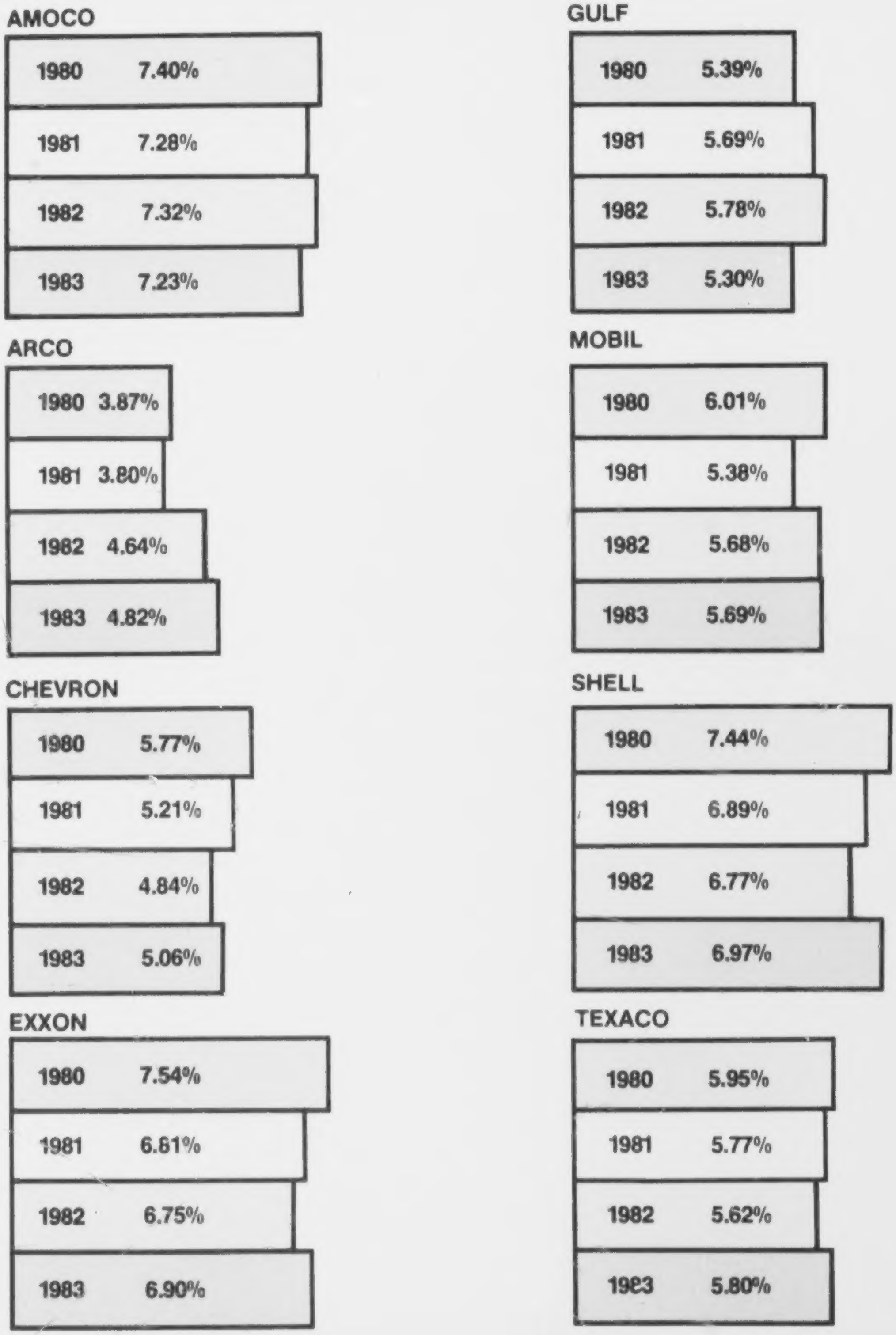
Note: Cities Service is included in Class I for the year 1982 only
Source: Lundberg Survey, Inc

## Top 11 Marketers: A Seven-Year Overview

| | 1983 | | 1982 | | 1981 | | 1980 | | 1979 | | 1978 | | 1977 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Rank | % Share | Rank | % Share | Rank | % Share | Rank | % Share | Rank | % Share | Rank | % Share | Rank | % Share |
| Amoco | 1 | 7.23 | 1 | 7.32 | 1 | 7.28 | 3 | 7.40 | 2 | 7.48 | 2 | 7.70 | 2 | 7.30 |
| Shell | 2 | 6.97 | 2 | 6.77 | 2 | 6.89 | 2 | 7.44 | 3 | 7.30 | 1 | 7.71 | 1 | 7.53 |
| Exxon | 3 | 6.90 | 3 | 6.75 | 3 | 6.81 | 1 | 7.54 | 1 | 7.65 | 3 | 7.28 | 3 | 7.14 |
| Texaco | 4 | 5.80 | 6 | 5.62 | 4 | 5.77 | 5 | 5.95 | 5 | 6.01 | 4 | 6.75 | 4 | 7.11 |
| Mobil | 5 | 5.69 | 5 | 5.68 | 6 | 5.38 | 4 | 6.01 | 6 | 5.78 | 6 | 5.55 | 6 | 5.59 |
| Gulf | 6 | 5.30 | 4 | 5.78 | 5 | 5.69 | 7 | 5.39 | 4 | 6.36 | 5 | 5.83 | 5 | 5.91 |
| Chevron | 7 | 5.06 | 8 | 4.84 | 7 | 5.21 | 6 | 5.77 | 7 | 5.30 | 7 | 4.76 | 7 | 4.75 |
| Arco | 8 | 4.82 | 7 | 4.64 | 8 | 3.80 | 8 | 3.87 | 8 | 3.89 | 8 | 3.79 | 8 | 3.85 |
| Union | 9 | 3.52 | 9 | 3.31 | 9 | 3.31 | 9 | 3.50 | 9 | 3.49 | 9 | 3.28 | 11 | 3.08 |
| Phillips | 10 | 2.61 | 10 | 2.77 | 10 | 2.88 | 10 | 2.83 | 11 | 2.85 | 11 | 3.02 | 10 | 3.15 |
| Sun | 11 | 2.54 | 11 | 2.64 | 11 | 2.55 | 11 | 2.74 | 10 | 3.01 | 10 | 3.20 | 9 | 3.39 |

Source: Lundberg Survey, Inc., May 1983 and prior reports

# The Top Eight: The Last Four Years



# Market Shares in Certain Metropolitan Areas

**This is the first in a new series of share-of-market studies which NPN Factbook hopes to continue indefinitely.** Data for the studies were provided by a national market research firm whose integrity and reputation are unimpeachable. This data is for major metropolitan market areas only. Next year, we will expand the listing to cover more markets.

## Boston

*(completed 1st half of 1983)*

| Majors | | Independents | |
|---|---|---|---|
| Mobil | 12% | BP | 6% |
| Arco | 10% | Old Colony | 3% |
| Sun | 10% | Gibbs | 3% |
| Shell | 7% | Merit | 2% |
| Exxon | 7% | | |

## Camden, N.J.

*(completed 1st half of 1984)*

| Majors | | Independents | |
|---|---|---|---|
| Arco | 24% | Hess | 3% |
| Exxon | 9% | Merit | 2% |
| Mobil | 9% | Discount Gas | 1% |
| Texaco | 8% | Star | 1% |

## Philadelphia

*(completed 1st half of 1984)*

| Majors | | Independents | |
|---|---|---|---|
| Arco | 22% | Merit | 3% |
| Sun | 13% | Hess | 2% |
| Exxon | 10% | Alert | 1% |
| Amoco | 8% | | |
| Gulf | 8% | | |

## Wilmington, Del.

*(completed 1st half of 1984)*

| Majors | | Independents | |
|---|---|---|---|
| Arco | 22% | Merit | 2% |
| Exxon | 19% | Jet | 1% |
| Gulf | 11% | 7-Eleven | 1% |
| Mobil | 7% | Alert | 1% |
| Texaco | 7% | | |
| Sun | 7% | | |

## Washington, D.C.

*(completed 1st half of 1984)*

| Majors | | Independents | |
|---|---|---|---|
| Amoco | 19% | Crown | 3% |
| Exxon | 19% | | |
| Shell | 13% | | |
| Texaco | 7% | | |
| Gulf | 7% | | |

## Miami

*(completed 2nd half of 1983)*

| Majors | | Independents | |
|---|---|---|---|
| Amoco | 18% | Hess | 3% |
| Shell | 12% | Direct | 1% |
| Gulf | 7% | | |
| Chevron | 7% | | |
| Exxon | 6% | | |

## Chicago

*(completed 2nd half of 1983)*

| Majors | | Independents | |
|---|---|---|---|
| Amoco | 22% | Clark | 3% |
| Shell | 15% | Cheker | 2% |
| Arco | 12% | | |
| Citgo | 7% | | |

## Denver

*(completed 2nd half of 1983)*

| Majors | | Independents | |
|---|---|---|---|
| Amoco | 14% | Vickers | 9% |
| Conoco | 7% | Pester | 6% |
| Phillips | 5% | 7-Eleven | 5% |
| Texaco | 5% | Shamrock | 5% |

## New Orleans

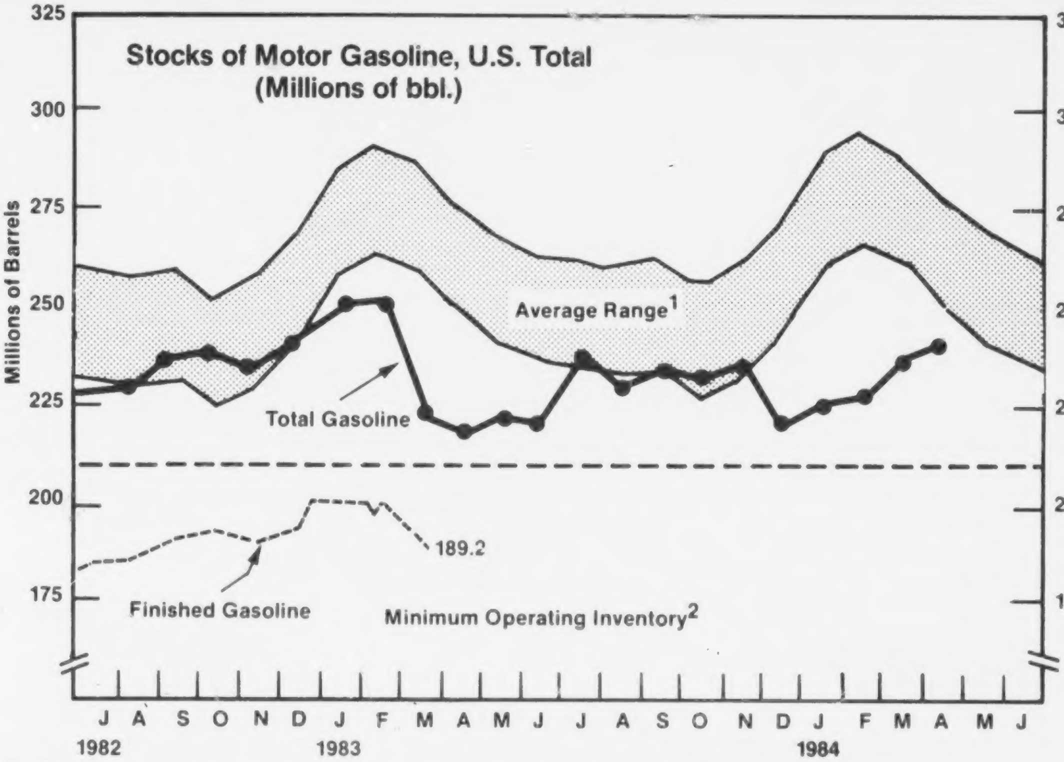
*(completed 2nd half of 1983)*

| Majors | | Independents | |
|---|---|---|---|
| Shell | 22% | Spur | 2% |
| Exxon | 12% | Vickers | 2% |
| Gulf | 12% | ECOL | 2% |
| Tenneco | 11% | 7-Eleven | 2% |
| Amoco | 10% | | |
| Texaco | 9% | | |

## Houston

*(completed 1st half of 1984)*

| Majors | | Independents | |
|---|---|---|---|
| Gulf | 20% | Shamrock | 9% |
| Exxon | 16% | 7-Eleven | 4% |
| Shell | 10% | Stop-n-Go | 3% |
| Texaco | 8% | Tenneco | 3% |
| | | Citgo | 2% |



Stocks of Motor Gasoline, U.S. Total (Millions of bbl.)

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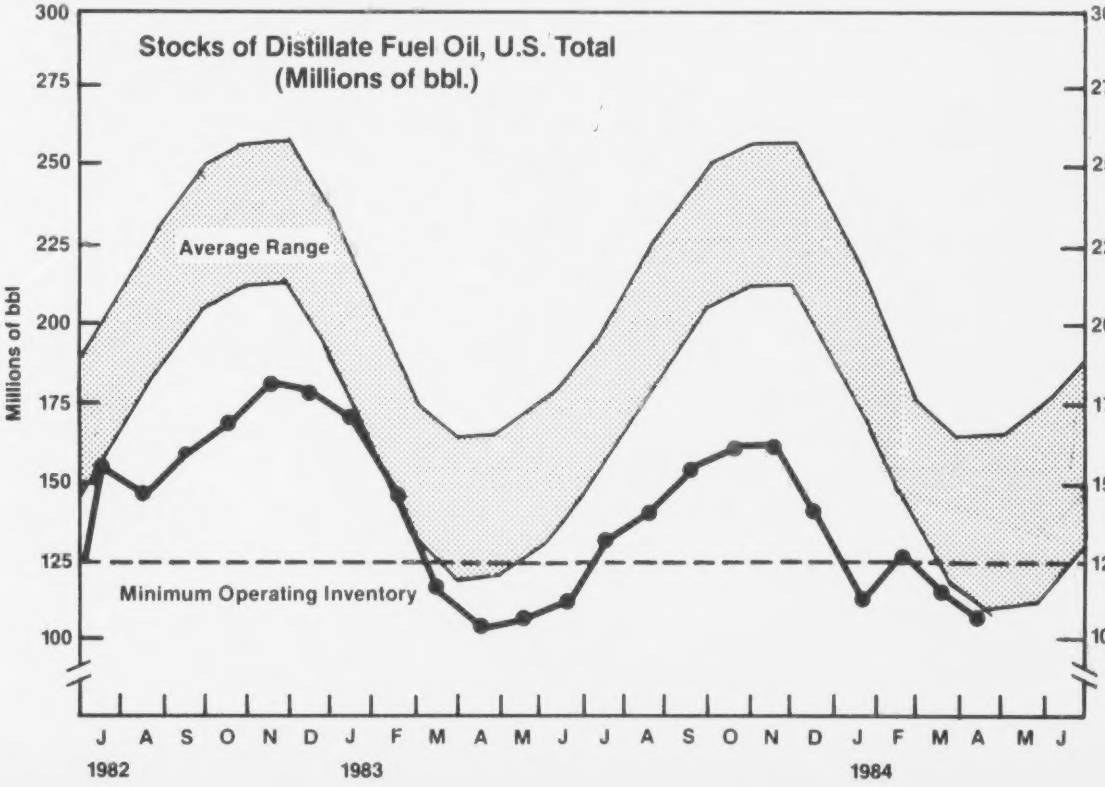
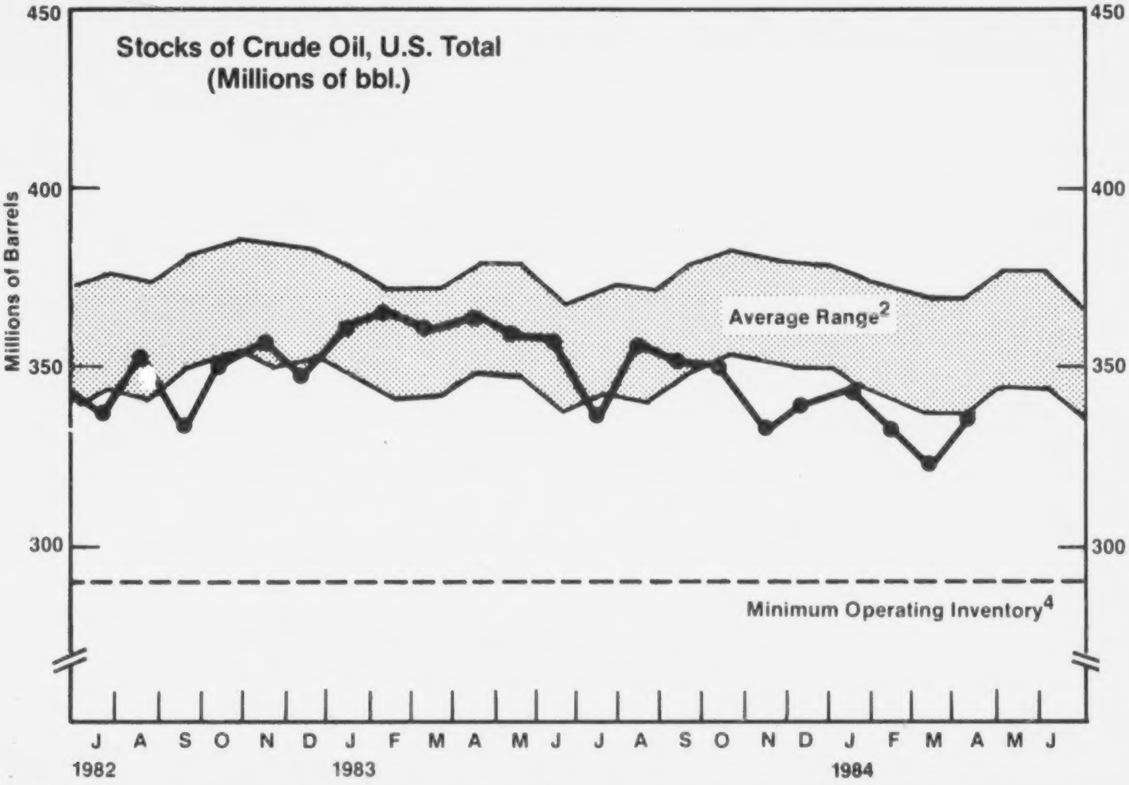
Product stocks at the Primary Level include those held at refineries in pipelines and at major bulk terminals. They do not include stocks held in secondary distribution facilities such as jobber tanks, consumer tanks, and or barges designed for consumer markets. (1) The average level and width of average range are based on three years of monthly data for the period of July 1980, through June 1983. The seasonal pattern is based on six years of monthly data 1976 and 1978-82. (2) National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. By its definition, runouts and shortages could occur if inventory levels fall below that level for any extended period of time. NPC revised its minimum operating levels in late 1983.

Source: Department of Energy, Weekly Statistical Reports, April 1984.



Stocks of Distillate Fuel Oil, U.S. Total (Millions of bbl.)



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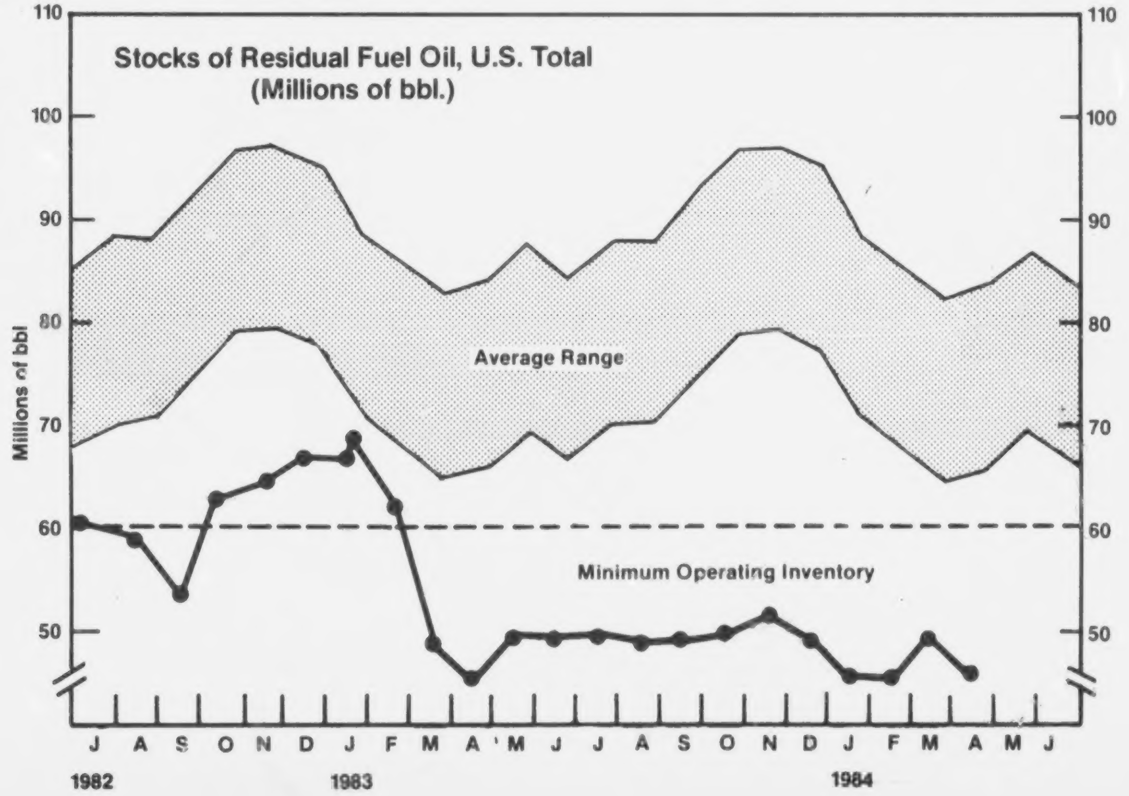
Crude Stocks at Primary Levels include those held at refineries, in pipelines, and in lease tanks, but do not include those held in the Strategic Petroleum Reserve operated by the U.S. Government. (1) The average level and width of average range are based on three years of monthly data for the period of July 1980 and June 1983. The seasonal pattern is based on six years of monthly data for the period of 1976 and 1978-82. (2) National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. By its definition, runouts and shortages could occur if inventory levels fall below that level for any extended period of time. NPC revised its minimum operating levels late in 1983.
Source: Department of Energy, Weekly Statistical Reports, April 1984.



# Stocks of Motor Gasoline by PAD Regions

(Add 000,000 bbl.)

| 1983 | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fin. Gasoline | 208.3 | 207.4 | 183.7 | 182.9 | 186.8 | 183.3 | 189.8 | 184.8 | 189.6 | 187.8 | 196.0 | 185.5 |
| Blend. Comp. | 42.6 | 43.8 | 40.3 | 37.9 | 37.8 | 39.9 | 40.8 | 41.6 | 40.0 | 40.5 | 39.9 | 36.9 |
| Total Gasoline | 250.9 | 251.1 | 224.0 | 220.8 | 224.6 | 223.2 | 230.6 | 226.4 | 229.6 | 228.3 | 235.9 | 222.4 |
| East Coast | 69.9 | 66.0 | 55.4 | 60.8 | 63.6 | 61.3 | 64.3 | 62.6 | 64.1 | 61.7 | 63.5 | 63.8 |
| Midwest | 75.3 | 77.2 | 68.3 | 65.4 | 64.6 | 63.7 | 64.6 | 64.8 | 65.7 | 65.3 | 68.4 | 63.7 |
| Gulf Coast | 65.0 | 66.6 | 66.3 | 62.7 | 64.0 | 64.7 | 65.1 | 62.3 | 65.0 | 68.0 | 70.0 | 60.1 |
| Rocky Mountain | 9.4 | 9.4 | 8.3 | 7.9 | 7.4 | 6.7 | 6.4 | 5.9 | 5.9 | 6.3 | 7.4 | 7.7 |
| West Coast | 31.3 | 31.9 | 25.8 | 24.1 | 25.0 | 26.9 | 30.2 | 30.8 | 29.0 | 27.1 | 26.6 | 27.0 |

# Stocks of Distillate Fuel Oil by PAD Regions

(Add 000,000 bbl.)

| 1983 | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total U.S. | 168.2 | 147.4 | 118.7 | 103.2 | 109.2 | 113.8 | 131.0 | 143.5 | 154.7 | 163.3 | 161.3 | 140.4 |
| East Coast | 71.1 | 55.3 | 38.1 | 31.8 | 37.2 | 41.1 | 50.9 | 61.9 | 67.5 | 74.6 | 70.8 | 57.8 |
| Midwest | 47.2 | 46.4 | 39.0 | 33.3 | 30.4 | 29.6 | 33.6 | 36.7 | 39.1 | 40.8 | 42.7 | 40.3 |
| Gulf Coast | 31.7 | 28.9 | 27.2 | 26.0 | 28.8 | 29.7 | 32.5 | 31.3 | 34.7 | 34.6 | 33.8 | 27.8 |
| Rocky Mountain | 4.1 | 4.0 | 3.3 | 2.8 | 2.9 | 2.8 | 3.0 | 3.0 | 2.7 | 2.6 | 2.8 | 3.3 |
| West Coast | 14.1 | 12.8 | 11.1 | 9.4 | 9.9 | 10.6 | 11.0 | 10.6 | 10.8 | 10.7 | 11.2 | 11.2 |

# Stocks of Residual Fuel Oil by PAD Regions

(Add 000,000 bbl.)

| 1983 | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total U.S. | 60.7 | 53.1 | 46.3 | 46.6 | 50.9 | 50.1 | 51.9 | 48.3 | 49.7 | 51.4 | 54.5 | 49.1 |
| East Coast | 29.9 | 25.1 | 20.6 | 20.3 | 23.8 | 24.0 | 25.3 | 23.8 | 23.5 | 25.3 | 29.3 | 25.0 |
| Midwest | 5.0 | 4.5 | 3.6 | 3.4 | 3.5 | 3.7 | 3.7 | 3.7 | 3.5 | 3.8 | 3.6 | 4.0 |
| Gulf Coast | 16.3 | 14.0 | 12.8 | 13.4 | 14.5 | 13.5 | 13.8 | 13.3 | 13.8 | 13.6 | 12.5 | 11.5 |
| Rocky Mountain | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| West Coast | 9.0 | 9.1 | 8.9 | 9.0 | 8.5 | 8.4 | 8.6 | 7.1 | 8.4 | 8.3 | 8.6 | 8.2 |

# Petroleum Products Supplied

(Millions of b/d)

| 1983 | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Motor Gasoline | 6.0 | 6.0 | 6.8 | 6.5 | 6.5 | 7.0 | 6.8 | 6.9 | 6.7 | 6.6 | 6.6 | 6.8 |
| Jet Fuel | 0.9 | 1.0 | 1.0 | 1.1 | 1.0 | 1.1 | 1.0 | 1.1 | 1.1 | 1.0 | 1.0 | 1.2 |
| Distillate Fuel Oil | 2.8 | 2.8 | 2.9 | 2.7 | 2.3 | 2.5 | 2.2 | 2.5 | 2.6 | 2.6 | 2.9 | 3.4 |
| Residual Fuel Oil | 1.6 | 1.6 | 1.6 | 1.4 | 1.3 | 1.3 | 1.3 | 1.4 | 1.3 | 1.2 | 1.4 | 1.6 |
| Other | 3.5 | 3.3 | 3.2 | 3.1 | 3.1 | 3.4 | 3.6 | 3.5 | 3.7 | 3.5 | 3.7 | 3.7 |
| Total | 14.8 | 14.8 | 15.5 | 14.8 | 14.3 | 15.3 | 14.9 | 15.4 | 15.4 | 14.9 | 15.5 | 16.7 |
| **1982** | | | | | | | | | | | | |
| Motor Gasoline | 6.0 | 6.2 | 6.5 | 6.9 | 6.7 | 6.8 | 6.8 | 6.6 | 6.5 | 6.4 | 6.6 | 6.5 |
| Jet Fuel | 1.0 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 |
| Distillate Fuel Oil | 3.5 | 3.1 | 2.9 | 3.0 | 2.4 | 2.5 | 2.1 | 2.2 | 2.5 | 2.6 | 2.5 | 2.9 |
| Residual Fuel Oil | 2.2 | 2.3 | 1.9 | 1.9 | 1.6 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 |
| Other | 3.5 | 3.3 | 3.3 | 3.2 | 3.2 | 3.2 | 3.4 | 3.5 | 3.5 | 3.4 | 3.3 | 3.4 |
| Total | 16.1 | 16.0 | 15.6 | 16.0 | 14.8 | 15.0 | 14.8 | 14.8 | 15.0 | 14.9 | 15.0 | 15.5 |

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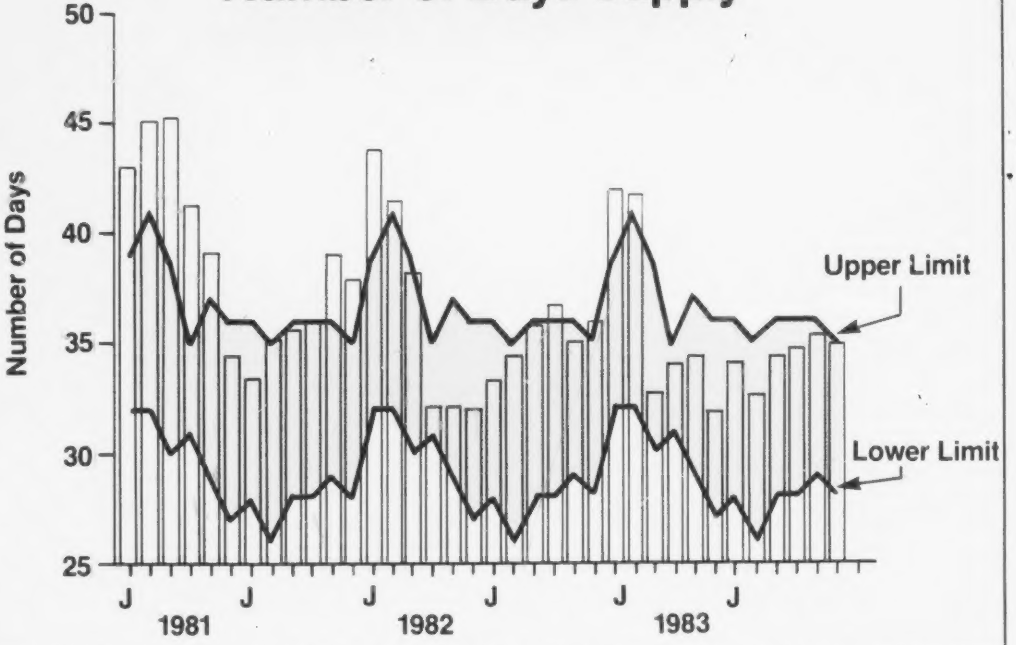
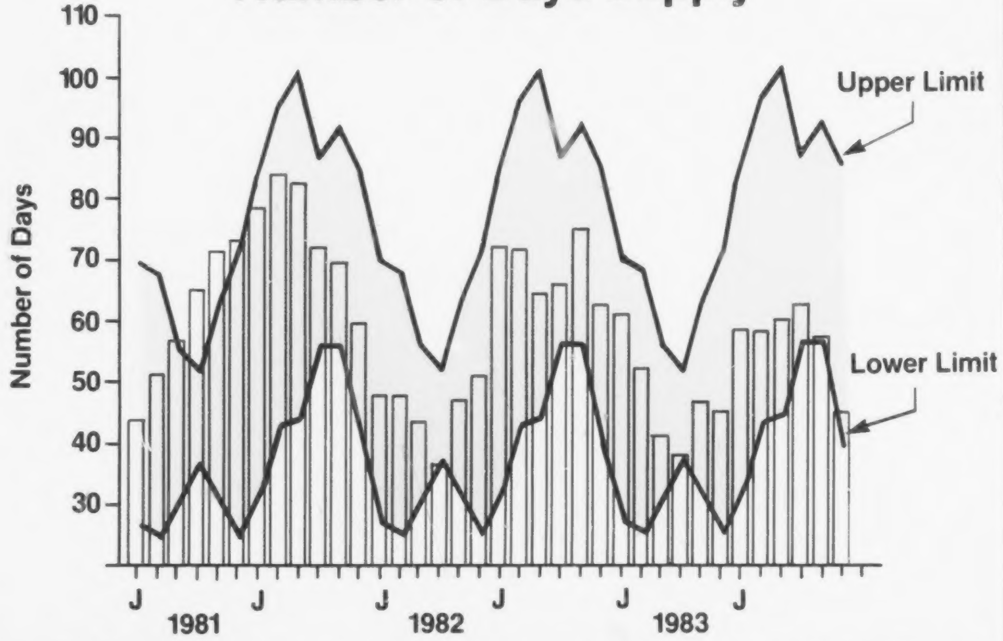
Source: Energy Information Administration, Weekly Petroleum Status Report

## Gasoline Inventories Number of Days Supply



Sources: Dept. of Energy, American Petroleum Inst. Historical Range based on highest and lowest value between 1973 and 1980

## Distillate Inventories Number of Days Supply



Sources: Dept. of Energy, American Petroleum Inst. Historical Range based on highest and lowest value between 1973 and 1980

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# Petroleum Production and New Reserves Found

All Time to Dec. 31, 1982

| | Total Liquid Petroleum (Mil. Bbl.) | | | Natural Gas (Bil. Cu. Ft.) | | |
|---|---|---|---|---|---|---|
| | Found | Produced | Proved Reserves Dec. 31, 1982 | Found | Produced | Proved Reserves Dec. 31, 1982 |
| **PAD District 1** | | | | | | |
| Florida | 681 | 567 | 114 | 509 | 423 | 86 |
| Maryland | 0 | 0 | 0 | † | † | † |
| New York | † | † | † | 835 | 606 | 229 |
| Pennsylvania | 1,356 | 1,319 | 37 | 11,014 | 9,584 | 1,430 |
| Virginia | † | † | † | † | † | † |
| West Virginia | 908 | 781 | 127 | 17,876 | 15,624 | 2,252 |
| **Total** | **2,945** | **2,667** | **278** | **30,234** | **26,237** | **3,997** |
| **PAD District 2** | | | | | | |
| Illinois | 3,316 | 3,166 | 150 | † | † | † |
| Indiana | 508 | 480 | 28 | † | † | † |
| Kansas | 6,436 | 5,756 | 680 | 37,701 | 27,573 | 10,128 |
| Kentucky | 848 | 777 | 71 | 4,178 | 3,586 | 592 |
| Michigan | 1,264 | 983 | 281 | 1,815 | 615 | 1,200 |
| Missouri | † | † | † | † | † | † |
| Nebraska | 439 | 407 | 32 | † | † | † |
| North Dakota | 1,059 | 751 | 309 | 1,707 | 1,011 | 696 |
| Ohio | 1,007 | 896 | 111 | 7,066 | 5,924 | 1,142 |
| Oklahoma | 16,495 | 14,779 | 1,716 | 73,067 | 55,927 | 17,140 |
| South Dakota | † | † | † | † | † | † |
| Tennessee | † | † | † | † | † | † |
| **Total** | **31,372** | **27,995** | **3,377** | **125,534** | **94,636** | **30,898** |
| **PAD District 3** | | | | | | |
| Alabama | 573 | 326 | 247 | 1,186 | 490 | 696 |
| Arkansas | 1,733 | 1,611 | 122 | 5,866 | 3,892 | 1,974 |
| Louisiana | 27,416 | 23,393 | 4,023 | 217,710 | 171,811 | 45,899 |
| Mississippi | 2,333 | 2,092 | 241 | 7,820 | 6,017 | 1,803 |
| New Mexico | 7,112 | 6,019 | 1,093 | 47,552 | 34,470 | 13,082 |
| Texas | 75,341 | 64,955 | 10,386 | 297,039 | 243,908 | 53,131 |
| **Total** | **114,509** | **98,396** | **16,113** | **577,173** | **460,588** | **116,585** |
| **PAD District 4** | | | | | | |
| Colorado | 1,845 | 1,490 | 355 | 7,454 | 3,903 | 3,551 |
| Montana | 1,370 | 1,136 | 234 | 2,810 | 1,940 | 870 |
| Utah | 1,283 | 818 | 465 | 3,866 | 1,613 | 2,253 |
| Wyoming | 6,454 | 5,209 | 1,245 | 20,113 | 9,958 | 10,155 |
| **Total** | **10,952** | **8,653** | **2,299** | **34,243** | **17,414** | **16,829** |
| **PAD District 5** | | | | | | |
| Alaska | 11,108 | 3,693 | 7,415 | 37,631 | 2,629 | 35,002 |
| Arizona | † | † | † | † | † | † |
| California | 26,289 | 20,730 | 5,559 | 35,353 | 29,606 | 5,747 |
| Nevada | † | † | † | † | † | † |
| Oregon | 0 | 0 | 0 | † | † | † |
| **Total** | **37,397** | **24,423** | **12,974** | **72,984** | **32,235** | **40,749** |
| **All Other States** | 312 | 275 | 37 | 2,376 | 2,180 | 196 |
| **Total U.S.** | **197,487** | **162,409** | **35,078** | **842,544** | **633,290** | **209,254** |

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†Included in All Other States.

Source: Independent Petroleum Assn. of America, "The Oil Industry in Your State, 1983."

# U.S. Crude Oil Production—1982-1973

(Thousands of b/d)

| | 1982 | 1981 | 1980 | 1979 | 1978 | 1977 | 1976 | 1975 | 1974 | 1973 |
|---|---|---|---|---|---|---|---|---|---|---|
| **PAD District 1** | | | | | | | | | | |
| Florida | 70.2 | 95.3 | 117.2 | 129.2 | 130.2 | 127.8 | 121.5 | 114.7 | 99.6 | 89.6 |
| New York | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | 2.4 | 2.5 | 2.6 |
| Pennsylvania | 11.7 | 10.2 | 7.2 | 7.9 | 7.9 | 7.4 | 8.3 | 9.0 | 9.5 | 9.0 |
| Virginia | 0.1 | ** | ** | ** | ** | ** | ** | ** | ** | ** |
| West Virginia | 8.9 | 9.5 | 6.4 | 6.6 | 6.5 | 6.9 | 6.9 | 6.8 | 7.3 | 6.5 |
| **Total** | **93.2** | **117.3** | **133.1** | **146.0** | **146.9** | **144.4** | **139.0** | **132.9** | **118.9** | **107.7** |
| **PAD District 2** | | | | | | | | | | |
| Illinois | 75.9 | 66.0 | 62.0 | 59.7 | 64.0 | 70.2 | 71.8 | 71.4 | 75.5 | 84.0 |
| Indiana | 15.2 | 12.9 | 13.6 | 12.9 | 12.8 | 14.6 | 12.7 | 12.7 | 13.5 | 14.6 |
| Kansas | 193.2 | 180.3 | 164.3 | 156.2 | 155.0 | 157.5 | 160.4 | 161.9 | 169.0 | 181.5 |
| Kentucky | 20.2 | 17.9 | 16.2 | 15.1 | 15.7 | 18.0 | 20.4 | 20.7 | 21.5 | 23.8 |
| Michigan | 86.2 | 89.5 | 97.8 | 95.5 | 95.0 | 90.3 | 83.1 | 66.9 | 49.4 | 40.0 |
| Nebraska | 18.8 | 18.3 | 17.0 | 16.6 | 16.1 | 16.4 | 16.9 | 16.8 | 18.1 | 19.8 |
| North Dakota | 129.5 | 124.4 | 110.2 | 84.7 | 68.0 | 63.8 | 59.4 | 56.0 | 54.0 | 55.4 |
| Ohio | 39.9 | 37.1 | 35.3 | 32.8 | 30.6 | 28.4 | 27.3 | 26.2 | 24.9 | 24.1 |
| Oklahoma | 434.6 | 422.1 | 410.2 | 393.6 | 412.2 | 428.4 | 441.0 | 446.9 | 487.1 | 523.8 |
| South Dakota | 3.2 | 2.7 | 2.1 | 2.3 | 2.4 | 1.7 | 1.2 | 1.3 | 1.3 | 0.8 |
| Other[1] | 3.7 | 3.2 | 2.4 | 1.9 | 1.8 | 2.4 | 1.8 | 2.0 | 2.2 | 0.8 |
| **Total** | **1,020.4** | **974.4** | **931.1** | **871.3** | **873.6** | **891.7** | **896.0** | **882.8** | **916.5** | **968.6** |
| **PAD District 3** | | | | | | | | | | |
| Alabama | 54.8 | 56.6 | 60.5 | 52.5 | 54.3 | 50.0 | 40.2 | 36.9 | 36.5 | 32.0 |
| Arkansas | 51.6 | 50.3 | 49.8 | 51.7 | 55.7 | 55.3 | 49.5 | 44.2 | 45.3 | 49.4 |
| Louisiana | 1,255.9 | 1,231.0 | 1,281.8 | 1,341.6 | 1,459.6 | 1,542.2 | 1,657.1 | 1,783.1 | 2,020.0 | 2,278.1 |
| Gulf | 1,159.3 | 1,135.2 | 1,193.2 | 1,254.1 | 1,363.1 | 1,441.1 | 1,552.7 | 1,680.8 | 1,913.7 | 2,169.2 |
| Other | 96.6 | 95.8 | 88.6 | 87.5 | 96.5 | 101.1 | 104.4 | 102.3 | 106.3 | 108.9 |
| Mississippi | 90.5 | 93.7 | 98.2 | 102.3 | 115.1 | 117.9 | 125.9 | 127.7 | 139.1 | 153.7 |
| New Mexico | 194.6 | 196.1 | 205.1 | 218.2 | 228.4 | 239.0 | 251.7 | 260.5 | 270.4 | 276.7 |
| Texas | 2,535.1 | 2,589.4 | 2,670.6 | 2,789.3 | 2,942.6 | 3,117.5 | 3,250.0 | 3,347.8 | 3,457.9 | 3,547.0 |
| **Total** | **4,182.5** | **4,217.1** | **4,366.0** | **4,555.6** | **4,855.7** | **5,121.9** | **5,374.4** | **5,600.2** | **6,969.2** | **6,336.9** |
| **PAD District 4** | | | | | | | | | | |
| Colorado | 83.7 | 83.0 | 81.4 | 88.5 | 100.8 | 108.1 | 106.5 | 104.4 | 102.8 | 100.2 |
| Montana | 84.7 | 84.4 | 80.0 | 82.1 | 83.5 | 89.5 | 89.7 | 90.0 | 94.7 | 94.8 |
| Utah | 61.5 | 70.9 | 68.2 | 76.0 | 85.9 | 90.7 | 93.7 | 115.9 | 107.8 | 89.5 |
| Wyoming | 324.1 | 357.7 | 345.2 | 361.3 | 376.4 | 373.9 | 366.5 | 372.5 | 383.5 | 388.8 |
| **Total** | **554.0** | **596.0** | **574.8** | **607.9** | **646.6** | **662.2** | **656.4** | **682.8** | **688.8** | **673.3** |
| **PAD District 5** | | | | | | | | | | |
| Alaska | 1,695.6 | 1,609.1 | 1,616.6 | 1,400.9 | 1,229.1 | 463.6 | 173.2 | 191.3 | 193.4 | 198.1 |
| Arizona | 0.9 | 1.0 | 1.1 | 1.3 | 1.1 | 1.2 | 1.4 | 1.7 | 2.0 | 2.2 |
| California | 1,100.2 | 1,054.7 | 975.2 | 965.1 | 951.2 | 957.8 | 890.8 | 882.7 | 885.0 | 920.8 |
| Nevada | 1.7 | 1.9 | 2.4 | 3.4 | 3.2 | 1.8 | 0.4 | 0.3 | 0.4 | 0.3 |
| **Total** | **2,798.4** | **2,666.7** | **2,595.3** | **2,370.7** | **2,184.6** | **1,424.4** | **1,065.8** | **1,076.0** | **1,080.8** | **1,121.4** |
| **Total U.S.** | **8.648.5** | **8,571.5** | **8,600.3** | **8,551.5** | **8,707.4** | **8,244.6** | **8,131.6** | **8,374.7** | **8,774.2** | **9,207.9** |

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**Less than 100 barrels per day.

[1] Missouri and Tennessee.

Source: Independent Petroleum Assn. of America, "The Oil Industry in Your State, 1983."

## U.S. Estimated Petroleum Balance—1983 (Add 000 bbl.)

| | Full Year | | | 4th Quarter | | | 3rd Quarter | | | 2nd Quarter | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Supply/Products Supplied From Primary Storage (a)** | **1983** | **1982** | **% Chng.** | **1983** | **1982** | **% Chng.** | **1983** | **1982** | **% Chng.** | **1983** | **1982** | **% Chng.** |
| **Products Supplied:** | | | | | | | | | | | | |
| Motor Gasoline, total | 6,606 | 6,539 | 1.0% | 6,639 | 6,504 | 2.1% | 6,800 | 6,646 | 2.3% | 6,687 | 6,783 | (1.4%) |
| Finished leaded gasoline | 2,970 | 3,130 | (5.1) | 2,884 | 3,075 | (6.2) | 3,028 | 3,146 | (3.8) | 3,044 | 3,293 | (7.6) |
| Finished unleaded gasoline | 3,636 | 3,409 | 6.7 | 3,755 | 3,429 | 9.5 | 3,722 | 3,500 | 7.8 | 3,643 | 3,490 | 4.4 |
| Naphtha-jet | 208 | 209 | (0.5) | 199 | 205 | (2.9) | 193 | 213 | (9.4) | 227 | 219 | 3.7 |
| Kerosine-jet | 837 | 804 | 4.1 | 870 | 818 | 6.4 | 860 | 792 | 8.6 | 831 | 780 | 6.5 |
| Distillate fuel oil | 2,681 | 2,661 | 0.8 | 2,944 | 2,631 | 11.9 | 2,367 | 2,247 | 5.3 | 2,511 | 2,617 | (4.1) |
| Residual fuel Oil | 1,377 | 1,668 | (17.4) | 1,279 | 1,517 | (15.7) | 1,313 | 1,421 | (10.7) | 1,312 | 1,588 | (17.4) |
| All other oils | 3,598 | 3,680 | (2.2) | 3,788 | 3,686 | 2.8 | 3,676 | 3,800 | (3.3) | 3,376 | 3,629 | (7.0) |
| Reclassified | -173 | -262 | (34.0) | -195 | -240 | (18.8) | -125 | -273 | (54.2) | -149 | -342 | (56.4) |
| Total domestic products supplied | 15,134 | 15,299 | (1.1) | 15,524 | 15,121 | 2.7 | 15,084 | 14,896 | 1.3 | 14,795 | 15,274 | (3.1) |
| Exports | 737 | 815 | (9.6) | 621 | 860 | (27.8) | 715 | 796 | (10.2) | 752 | 764 | (1.6) |
| **Total products supplied** | **15,871** | **16,114** | **(1.5)** | **16,145** | **15,981** | **1.0** | **15,799** | **15,692** | **0.7** | **15,547** | **16,038** | **(3.1)** |
| **Supply:** | | | | | | | | | | | | |
| Domestic production | | | | | | | | | | | | |
| Crude oil | 8,655 | 8,649 | 0.1 | 8,636 | 8,665 | (0.3) | 8,658 | 8,664 | (0.1) | 8,682 | 8,651 | 0.4 |
| Natural gas liquids | 1,567 | 1,550 | 1.1 | 1,604 | 1,589 | 0.9 | 1,516 | 1,519 | (0.2) | 1,536 | 1,537 | (0.1) |
| Other supply | 718 | 645 | 11.3 | 660 | 687 | (3.9) | 504 | 576 | (12.5) | 694 | 654 | 6.1 |
| Total domestic supply | 10,940 | 10,844 | 0.9 | 10,990 | 10,941 | (0.4) | 10,678 | 10,759 | (0.8) | 10,912 | 10,842 | 0.6 |
| Imports: | | | | | | | | | | | | |
| Crude oil, total | 3,083 | 3,323 | (7.2) | 3,192 | 3,334 | 4.3 | 3,899 | 3,766 | 3.5 | 3,046 | 3,137 | (2.9) |
| Canadian | 270 | 214 | 26.2 | 276 | 235 | 17.4 | 297 | 245 | 21.2 | 243 | 189 | 28.6 |
| Other | 2,813 | 3,109 | (9.5) | 2,916 | 3,099 | (5.9) | 3,602 | 3,521 | 2.3 | 2,803 | 2,948 | (4.9) |
| Products, total | 1,671 | 1,625 | 2.8 | 1,752 | 1,706 | 2.7 | 1,858 | 1,602 | 16.0 | 1,571 | 1,463 | 7.4 |
| Residual fuel oil | 685 | 776 | (11.7) | 667 | 788 | (15.4) | 707 | 691 | 2.3 | 639 | 715 | (10.6) |
| Other | 986 | 849 | 16.1 | 1,085 | 918 | 18.2 | 1,151 | 911 | 26.3 | 932 | 748 | 24.6 |
| Total imports | 4,754 | 4,948 | (3.9) | 4,944 | 5,040 | (1.9) | 5,755 | 5,368 | 7.2 | 4,617 | 4,600 | 0.4 |
| **Total supply** | **15,694** | **15,792** | **(0.6)** | **15,844** | **15,981** | **(0.9)** | **16,435** | **16,127** | **1.9** | **15,529** | **15,442** | **0.6** |

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(a) Preliminary for 1983.
Source: American Petroleum Institute, Monthly Statistical Reports.

## U.S. Refinery Operations (Add 000 b/d)

| | Full Year | | | 4th Quarter | | | 3rd Quarter | | | 2nd Quarter | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Refinery Operations (a)** | **1983** | **1982** | **% Chng.** | **1983** | **1982** | **% Chng.** | **1983** | **1982** | **% Chng.** | **1983** | **1982** | **% Chng.** |
| Import to crude oil distillation units | 11,914 | 12,171 | (2.1%) | 11,474 | 11,898 | (3.6%) | 12,856 | 12,558 | 2.4% | 12,018 | 12,310 | (2.4%) |
| Operable capacity | 16,644 | 17,432 | (4.5) | 16,309 | 17,076 | (4.5) | 16,294 | 17,001 | (4.2) | 16,847 | 17,843 | (5.6) |
| Refinery utilization (%) | 71.6% | 69.8% | 2.6 | 70.4% | 69.7% | 1.0 | 78.9% | 73.9% | 6.8 | 71.3% | 69.0% | 3.3 |
| Crude oil runs | 11,675 | 11,744 | (0.8) | 11,264 | 11,514 | (2.2) | 12,552 | 12,146 | 3.3 | 11,692 | 11,894 | (1.7) |

---

(a) Preliminary for 1983 data.
Source: American Petroleum Institute, Monthly Statistical Reports.

## Crude and Product Inventories (Add 000,000 bbl.)

| | Full Year | | | 4th Quarter | | | 3rd Quarter | | | 2nd Quarter | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Stocks (a)** | **1983** | **1982** | **% Chng.** | **1983** | **1982** | **% Chng.** | **1983** | **1982** | **% Chng.** | **1983** | **1982** | **% Chng.** |
| Crude oil (b) | 348.0 | 350.0 | (0.3%) | 348.0 | 350.0 | (0.3%) | 347.8 | 340.7 | 2.1% | 350.8 | 342.8 | 2.3% |
| Unfinished oils | 104.9 | 105.3 | (0.4) | 104.9 | 105.3 | (0.4) | 114.0 | 117.8 | (3.2) | 108.2 | 117.5 | (7.9) |
| Total motor gasoline | 229.7 | 244.3 | (6.0) | 229.7 | 244.3 | (6.0) | 230.7 | 233.6 | (1.2) | 224.1 | 219.8 | 2.0 |
| Finished leaded motor gasoline | 96.0 | 102.2 | (6.1) | 96.0 | 102.2 | (6.1) | 97.4 | 93.5 | 4.2 | 94.6 | 90.4 | 4.6 |
| Finished unleaded motor gasoline | 94.6 | 100.4 | (5.8) | 94.6 | 100.4 | (5.8) | 93.6 | 97.6 | (4.1) | 88.7 | 87.5 | 1.4 |
| Naphtha-jet | 6.9 | 7.2 | (4.2) | 6.9 | 7.2 | (4.2) | 6.6 | 6.3 | 4.8 | 7.5 | 6.1 | 23.0 |
| Kerosine-jet | 33.3 | 32.0 | 4.1 | 33.3 | 32.0 | 4.1 | 34.4 | 33.3 | 3.3 | 35.7 | 34.0 | 5.0 |
| Distillate fuel oil | 146.5 | 185.6 | (21.1) | 146.5 | 185.6 | (21.1) | 154.4 | 161.2 | (4.2) | 114.3 | 124.6 | (8.3) |
| Residual fuel oil | 49.9 | 68.2 | (26.8) | 49.9 | 68.2 | (26.8) | 46.9 | 61.8 | (24.1) | 47.1 | 60.5 | (22.1) |
| All other oils | 183.5 | 175.6 | 4.5 | 183.5 | 175.6 | 4.5 | 200.5 | 181.4 | 10.5 | 174.3 | 192.8 | (9.5) |
| **Total all oils** | **1,103.5** | **1,168.2** | **(5.5)** | **1,103.5** | **1,168.2** | **5.5** | **1,135.3** | **1,136.1** | **(0.1)** | **1,062.0** | **1,098.1** | **(3.3)** |

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(a) Preliminary for 1983; (b) Does not include oil imported for Strategic Petroleum Reserve, nor crude stocks held in the SPR.
Source: American Petroleum Institute, Monthly Statistical Reports.

## Domestic Supply Trend (Add 000,000 bbl.)

| **Year** | **All products** | **Gasoline** | **Kerosine (a)** | **Distillate** | **Residual** | **LPG** | **Lubes** | **Other** |
|---|---|---|---|---|---|---|---|---|
| 1983 (b) | 5,020 | 2,415 | 352 | 979 | 512 | 538 | 52 | 172 |
| 1982 | 5,568 | 2,386 | 339 | 977 | 618 | 443 | 51 | 754 |
| 1981 | 5,861 | 2,404 | 342 | 1,032 | 762 | 407 | 56 | 858 |
| 1980 | 6,932 | 2,536 | 397 | 1,389 | 1,033 | 414 | 58 | 1,105 |
| 1979 | 6,758 | 2,568 | 388 | 1,210 | 1,032 | 456 | 66 | 1,038 |
| 1978 | 6,879 | 2,705 | 377 | 1,253 | 1,103 | 358 | 63 | 1,020 |
| 1977 | 6,710 | 2,633 | 350 | 1,223 | 1,121 | 369 | 58 | 956 |
| 1976 | 6,391 | 2,567 | 351 | 1,147 | 1,025 | 381 | 56 | 864 |
| 1975 | 5,958 | 2,436 | 347 | 1,041 | 899 | 362 | 50 | 823 |
| 1973 | 6,317 | 2,453 | 386 | 1,124 | 1,030 | 404 | 59 | 851 |
| 1971 | 5,552 | 2,213 | 385 | 971 | 838 | 369 | 49 | 727 |
| 1970 | 5,364 | 2,131 | 358 | 927 | 804 | 363 | 50 | 731 |
| 1965 | 4,202 | 1,720 | 220 | 776 | 587 | 307 | 47 | 545 |
| 1960 | 3,610 | 1,512 | 132 | 685 | 559 | 227 | 43 | 427 |

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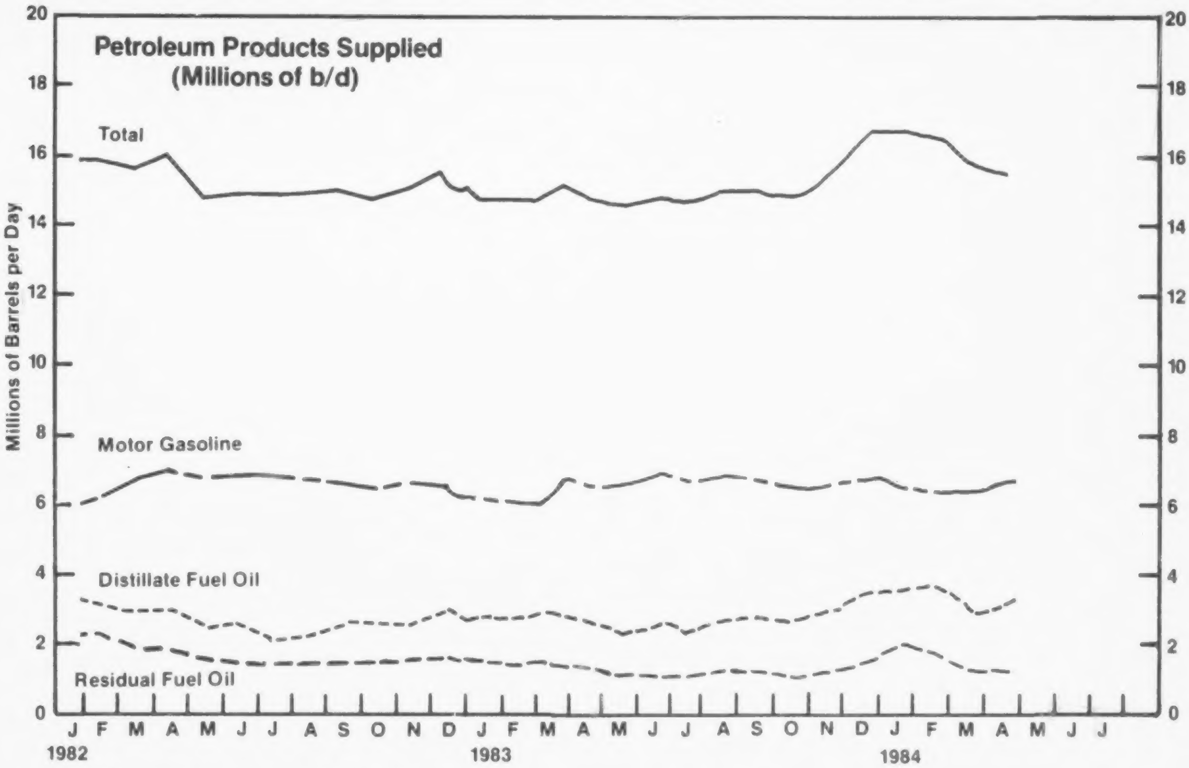
(a) Kerosine includes jet fuel; (b) Preliminary.
Source: Petroleum Supply Monthly, Energy Information Administration.



Source: Department of Energy, Weekly Petroleum Status Report

# Role of Imports in Domestic Demand

| | U.S. Imports | | | Domestic Demand for Refined Products | | | |
|---|---|---|---|---|---|---|---|
| Year | Total (a) (Add 000) | b/d Avg. | % Change | Total (Add 000) | b/d Avg. | % Change | Imports as % of U.S. Demand |
| 1983 (b) | 1,820,620 | 4,988 | −2.5% | 5,542,160 | 15,184 | −0.7% | 32.9% |
| 1982 | 1,866,358 | 5,113 | −10.9 | 5,582,938 | 15,295 | −4.7 | 33.4 |
| 1981 | 2,095,122 | 5,740 | −16.4 | 5,861,058 | 16,058 | −5.9 | 35.7 |
| 1980 | 2,512,636 | 6,865 | −18.2 | 6,242,445 | 17,056 | −7.9 | 40.3 |
| 1979 | 3,062,053 | 8,389 | +2.3 | 6,757,077 | 18,513 | −1.8 | 45.3 |
| 1978 | 2,993,847 | 8,202 | −6.7 | 6,879,017 | 18,847 | +2.3 | 43.5 |
| 1977 | 3,207,106 | 8,787 | +20.2 | 6,727,468 | 18,431 | +5.6 | 47.7 |
| 1976 | 2,676,411 | 7,313 | +20.8 | 6,390,750 | 17,461 | +7.2 | 41.9 |
| 1975 | 2,210,335 | 6,056 | −0.9 | 5,957,515 | 16,322 | −2.0 | 37.1 |
| 1974 | 2,230,947 | 6,112 | −2.3 | 6,078,239 | 16,653 | −3.8 | 36.7 |
| 1973 | 2,283,493 | 6,256 | +32.0 | 6,317,303 | 17,308 | +5.7 | 36.1 |
| 1972 | 1,735,314 | 4,741 | +20.8 | 5,990,316 | 16,367 | +7.6 | 29.0 |
| 1971 | 1,432,880 | 3,926 | +14.8 | 5,552,560 | 15,212 | +3.5 | 25.8 |
| 1970 | 1,248,062 | 3,419 | +8.0 | 5,364,473 | 14,697 | +4.0 | 23.3 |
| 1965 | 900,772 | 2,468 | +9.3 | 4,202,039 | 11,512 | +4.4 | 21.4 |
| 1960 | 664,111 | 1,815 | +2.0 | 3,585,820 | 9,797 | +2.8 | 18.5 |
| 1955 | 455,564 | 1,248 | +18.6 | 3,089,348 | 8,464 | +9.0 | 14.7 |
| 1950 | 310,261 | 850 | +31.8 | 2,392,974 | 6,556 | +13.0 | 13.0 |

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(a) Crude oil and products but not crude for Strategic Petroleum Reserve; (b) Preliminary.
Source: American Petroleum Institute, Basic Petroleum Data Book, Department of Energy

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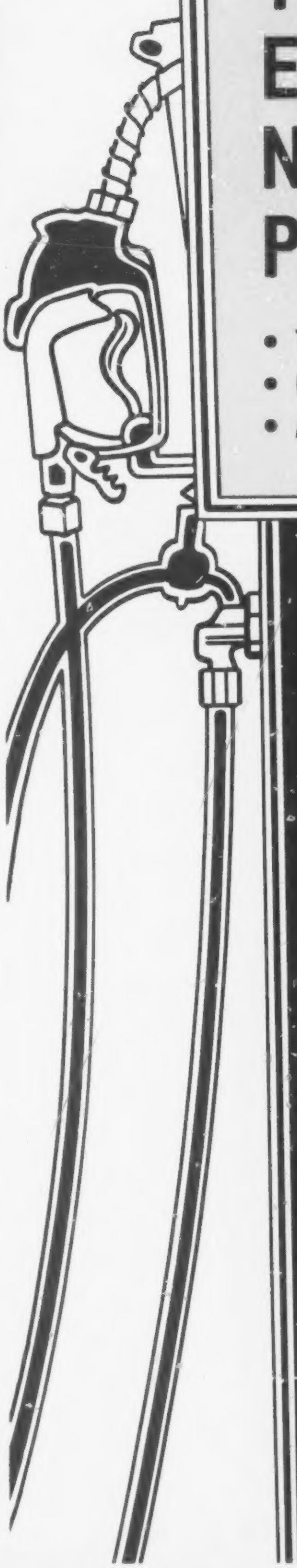

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# Petroleum Product Consumption—1982

(Add 000 bbl.)

| | Motor Gasoline | Aviation Fuels[1] | Middle Distillates[2] | Residual Fuel Oil | L.P.G. | Asphalt Road Oil | All Other | Total |
|---|---|---|---|---|---|---|---|---|
| Alabama | 43,819 | 867 | 17,166 | 6,350 | 3,742 | 4,490 | 9,322 | 86,756 |
| Alaska | 5,598 | 8,886 | 7,597 | 301 | 180 | 461 | 2,827 | 25,850 |
| Arizona | 31,943 | 3,635 | 8,120 | 297 | 1,400 | 1,907 | 5,773 | 53,075 |
| Arkansas | 26,749 | 686 | 13,845 | 1,803 | 3,452 | 2,399 | 5,954 | 54,888 |
| California | 253,822 | 38,869 | 67,871 | 81,392 | 13,761 | 12,300 | 51,058 | 519,073 |
| Colorado | 36,029 | 4,658 | 9,394 | 14 | 3,906 | 2,030 | 6,856 | 62,887 |
| Connecticut | 30,594 | 898 | 20,890 | 21,349 | 1,199 | 984 | 9,261 | 85,175 |
| Delaware | 6,725 | 75 | 3,093 | 6,289 | 748 | 554 | 2,165 | 19,649 |
| Florida | 116,671 | 24,243 | 23,529 | 63,079 | 7,516 | 6,273 | 23,394 | 264,705 |
| Georgia | 67,104 | 11,617 | 18,700 | 5,562 | 5,385 | 4,920 | 13,832 | 127,120 |
| Hawaii | 8,312 | 4,526 | 4,570 | 13,323 | 1,779 | 215 | 3,969 | 36,694 |
| Idaho | 10,876 | 367 | 4,527 | 223 | 871 | 677 | 2,165 | 19,706 |
| Illinois | 107,675 | 13,845 | 32,960 | 15,507 | 22,729 | 6,089 | 18,222 | 217,027 |
| Indiana | 57,890 | 3,209 | 29,504 | 4,856 | 5,775 | 6,765 | 13,170 | 121,169 |
| Iowa | 33,829 | 552 | 16,662 | 321 | 10,110 | 2,399 | 7,818 | 71,691 |
| Kansas | 29,433 | 1,189 | 14,043 | 993 | 10,105 | 2,368 | 7,096 | 65,227 |
| Kentucky | 40,991 | 2,919 | 18,647 | 1,197 | 6,016 | 3,629 | 8,961 | 82,360 |
| Louisiana | 51,074 | 5,549 | 36,608 | 48,260 | 74,821 | 3,721 | 26,822 | 246,855 |
| Maine | 12,039 | 414 | 9,505 | 15,803 | 708 | 584 | 4,751 | 43,804 |
| Maryland | 44,973 | 2,019 | 17,003 | 11,898 | 1,729 | 3,936 | 9,923 | 91,481 |
| Massachusetts | 53,238 | 6,172 | 33,031 | 42,762 | 1,825 | 1,907 | 16,959 | 155,894 |
| Michigan | 90,480 | 3,574 | 23,562 | 4,285 | 6,011 | 3,260 | 15,997 | 147,169 |
| Minnesota | 45,981 | 3,595 | 21,111 | 1,732 | 6,337 | 4,859 | 10,224 | 93,839 |
| Mississippi | 27,426 | 1,911 | 12,179 | 5,570 | 3,790 | 2,153 | 6,495 | 59,524 |
| Missouri | 59,402 | 3,698 | 21,518 | 856 | 7,566 | 4,121 | 11,847 | 109,008 |
| Montana | 10,771 | 513 | 5,814 | 1,668 | 1,223 | 1,107 | 2,586 | 23,682 |
| Nebraska | 18,871 | 576 | 9,269 | 198 | 4,050 | 923 | 4,150 | 38,037 |
| Nevada | 11,673 | 4,061 | 3,536 | 119 | 826 | 830 | 2,586 | 23,631 |
| New Hampshire | 9,364 | 62 | 5,332 | 4,106 | 1,115 | 461 | 2,526 | 22,966 |
| New Jersey | 75,536 | 27,756 | 46,952 | 34,241 | 5,292 | 6,058 | 23,875 | 219,710 |
| New Mexico | 17,729 | 762 | 8,539 | 716 | 2,301 | 1,814 | 32,836 | 64,697 |
| New York | 133,747 | 3,215 | 65,169 | 97,868 | 4,125 | 6,765 | 31,873 | 342,762 |
| North Carolina | 67,890 | 2,944 | 22,516 | 5,971 | 5,872 | 2,768 | 13,169 | 121,130 |
| North Dakota | 9,597 | 225 | 7,235 | 1,171 | 1,223 | 953 | 2,406 | 22,810 |
| Ohio | 108,598 | 4,468 | 42,813 | 2,488 | 34,503 | 9,225 | 24,657 | 226,752 |
| Oklahoma | 45,934 | 3,239 | 15,018 | 700 | 6,828 | 4,305 | 9,261 | 85,285 |
| Oregon | 28,836 | 1,535 | 15,116 | 10,927 | 1,118 | 2,091 | 7,277 | 66,900 |
| Pennsylvania | 104,384 | 7,177 | 55,997 | 20,789 | 6,064 | 6,765 | 18,402 | 219,578 |
| Rhode Island | 8,591 | 227 | 4,109 | 1,791 | 277 | 1,507 | 1,985 | 18,487 |
| South Carolina | 36,091 | 489 | 10,067 | 2,965 | 2,205 | 1,507 | 6,495 | 59,819 |
| South Dakota | 9,358 | 217 | 5,168 | 51 | 1,887 | 800 | 2,105 | 19,586 |
| Tennessee | 56,081 | 1,822 | 19,863 | 748 | 1,944 | 5,228 | 10,464 | 96,150 |
| Texas | 195,278 | 31,784 | 100,307 | 62,069 | 165,188 | 9,840 | 62,844 | 627,310 |
| Utah | 17,477 | 1,644 | 6,617 | 886 | 1,288 | 1,169 | 3,548 | 32,629 |
| Vermont | 5,641 | 47 | 2,894 | 372 | 729 | 92 | 1,143 | 10,916 |
| Virginia | 59,372 | 6,889 | 23,211 | 9,591 | 2,502 | 2,522 | 12,689 | 116,776 |
| Washington | 44,075 | 9,183 | 18,392 | 14,029 | 1,443 | 2,245 | 10,885 | 100,252 |
| West Virginia | 19,306 | 240 | 8,102 | 1,443 | 2,270 | 830 | 3,909 | 36,100 |
| Wisconsin | 47,192 | 1,712 | 20,779 | 2,212 | 5,002 | 2,645 | 9,682 | 89,224 |
| Wyoming | 8,558 | 215 | 11,154 | 1,634 | 2,157 | 1,138 | 3,007 | 27,863 |
| District of Columbia | 4,060 | 287 | 2,221 | 1,527 | (3) | (3) | 2,165 | 10,260 |
| **TOTAL U.S.** | **2,44[illegible]3** | **259,262** | **1,021,825** | **634,302** | **462,893** | **156,589** | **601,386** | **5,582,940** |

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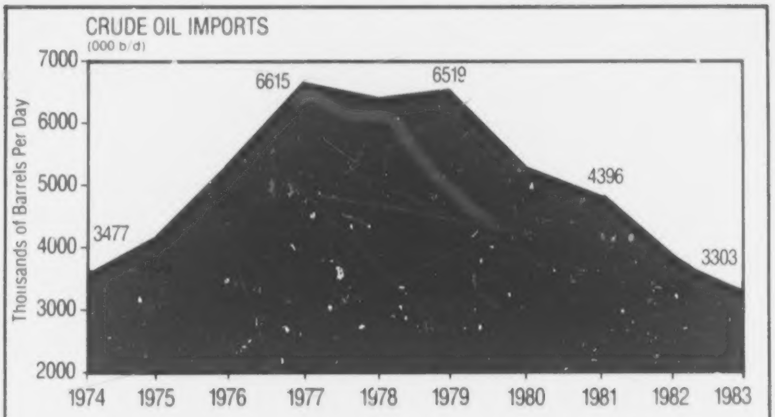
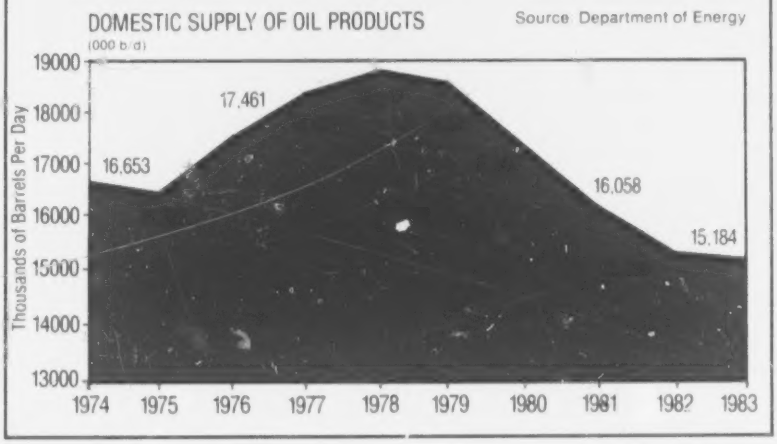
[1] Does not include aviation fuel for military use

[2] Includes Kerosine

(3)Dist. of Columbia included in Maryland

Source: Independent Petroleum Assn. of America, "The Oil Industry in Your State 1983"


CRUDE OIL IMPORTS
(000 b/d)


DOMESTIC SUPPLY OF OIL PRODUCTS
(000 b/d)

Source: Department of Energy

**The consumption declines of recent years appear to have bottomed out in 1983. At least, there were modest upturns in demand for gasoline, distillate oils, avgas, jet fuel, lubes and asphalt—everything but residual fuel oil.**

The increases were not truly significant, however—1% in the case of gasoline, for example. But they were, nevertheless, plus instead of minus signs. The rise in distillate consumption meant little to fuel oil dealers. Most of the increase was in diesel fuel for highway transportation, not residential furnaces.

Price competition was as fierce as ever. At the end of the year, the leaded regular average was $1.157/gal., down almost 7¢ from the preceding year; unleaded regular was $1.241 gal., compared with $1.296 for 1982; and unleaded premium was $1.372, versus 1982's $1.417. The average for all types was $1.225, compared with $1.281 in 1982.

A note of good cheer was another decrease in U.S. reliance on foreign oil. Imports of crude and products declined to 4.8-million b/d from 4.9-million b/d in 1982.

This was only a one-tenth of a percent decrease in U.S. reliance on imports—30.1% in 1982 to 30.0% in 1983, and forecasters continue to say that imports are going to rise again and that by the year 2000 the U.S. will be bringing in almost half of the oil it needs.

## Supply and Production, Principal Products

(Add 000 bbl.)

| | Motor Gasoline | Aviation Gasoline | Distillate Fuel Oil | Residual Fuel Oil | Jet Fuel (a) | Lubricants | Asphalt |
|---|---|---|---|---|---|---|---|
| Domestic Supply | | | | | | | |
| 1983 | 2,415,377 | 9,375 | 978,958 | 512,175 | 380,369 | 51,924 | 136,234 |
| 1982 | 2,386,286 | 9,322 | 976,822 | 618,351 | 369,283 | 50,882 | 124,545 |
| Production | | | | | | | |
| 1983 | 2,310,413 | 7,981 | 895,521 | 308,945 | 372,284 | 53,561 | 135,626 |
| 1982 | 2,315,626 | 8,176 | 953,420 | 388,614 | 356,513 | 51,563 | 121,556 |
| Imports | | | | | | | |
| 1983 | 90,901 | 214 | 61,645 | 251,609 | 9,629 | 2,995 | 2,420 |
| 1982 | 67,604 | 0 | 33,821 | 276,680 | 9,629 | 3,557 | 1,678 |

## U.S. Oil Imports (a)

(Add 000 b/d)

| Year | Crude Oil | Other Products | Residual Fuel Oil | Total Imports | % of Total U.S. Supply |
|---|---|---|---|---|---|
| 1983 (b) | 3,083 | 986 | 685 | 4,754 | 30.3% |
| 1982 | 3,323 | 849 | 776 | 4,948 | 31.3 |
| 1981 | 4,141 | 779 | 800 | 5,720 | 33.9 |

(a) Does not include Strategic Petroleum Reserve. (b) Preliminary
Source: Department of Energy, Monthly Energy Review and IPAA

## Origins of U.S. Oil Imports

(Add 000 b/d)

| | Western Hemisphere | | | Eastern Hemisphere | | |
|---|---|---|---|---|---|---|
| Year | Canada | Venezuela | Other | Mid-East | Africa | Other |
| 1983 | 542 | 414 | 1,599 | 413 | 529 | 1,472 |
| 1982 | 465 | 385 | 1,925 | 790 | 705 | 605 |
| 1981 | 410 | 375 | 1,375 | 1,120 | 1,425 | 1,020 |

Source: Independent Petroleum Assn. of America and Monthly Energy Review

| | Total Well Completions | | | Proved Reserves | | | | Supply (Add 000 b/d) | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Total (a) | Dry | % Dry | Crude Oil (b) | Crude Production Reserve Ratio | Natural Gas (c) | Natural Gas Production Reserve Ratio | Domestic Crude & Natl. Gas Lqds. | Crude & Product Imports |
| 1983 (d) | 78,515 | 23,518 | 30.0 | NA | NA | NA | NA | 10,222 | 4,754 |
| 1982 | 88,106 | 26,549 | 30.1 | 27,858 | 9.4 | 201.5 | 11.5 | 10,199 | 4,948 |
| 1981 | 80,537 | 22,973 | 28.5 | 29,426 | 10.0 | 201.7 | 10.4 | 10,180 | 5,720 |

(a) Includes oil, gas, service and dry completions. (b) Millions of bbl. (c) Trillions of cubic feet. (d) Preliminary. Source: Independent Petroleum Assn. of America and Department of Energy

# Supply/Demand Forecast for 1984

**At its meeting in early May, the Independent Petroleum Assn. of America, whose semiannual forecasts are usually well on target, predicted that things in 1984 are going to be different and better than they were in 1983.**

This is what IPAA saw in its crystal ball:

Domestic demand will increase more than 2% to reach a total of 15.62-million b/d by the end of the year—the first increase in product demand since 1978. Demand for motor fuel is expected to increase slightly, as it will for aviation fuel, middle distillates, and, after a slump in recent years, residual fuel oil.

Total supply in 1984 will be up slightly—about 3.9%—due mostly to increased imports. While domestic production is forecast to remain at its current level, IPAA says total imports will reach 5,367,000 b/d, a 12.87% jump up from 1983's level.

Inventories of crude and finished products are expected to increase a little bit in 1984. Last year, contrary to what many observers (including IPAA) thought would happen, there was a substantial stock withdrawal.

Crude runs will increase to 12.1-million b/d, up from 11.7-million b/d in 1983. Refinery capacity utilization will improve but not approach levels reached in the past.

Going into more detail, the IPAA forecast also said:

"Domestic product demand is expected to reverse its 5-year slide and go up 436,000 b/d in 1984.

"Motor gasoline demand is forecast to increase a slight 17,000 b/d in 1984, averaging 6.63-million b/d. Consumption is expected to improve due to the impact of higher employment and increased personal income, both of which are partially offset by increased fuel efficiency.

Aviation fuel consumption is expected to increase 5.3% in 1984, averaging 1.12-million b/d. Most of this increase can be attributed to an increase in the number of domestic flights.

Middle distillate demand is forecast to increase 4.0% this year to average 2.92-million b/d. The increase is primarily due to significantly colder weather so far in 1984 and greater industrial activity.

Residual fuel oil consumption is projected to rise 73,000 b/d (a 5.2% boost) to average 1.48-million b/d in 1984. Increased consumption in the industrial and utility sectors will strongly contribute to this gain.

Demand for liquefied gases are expected to increase 2.9% in 1984 to average 1.51-million b/d.

**(Add 000 b/d except stocks which are millions of bbl.)**

| | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. | Full Year |
|---|---|---|---|---|---|
| **Domestic Product Demand:** | | | | | |
| Motor Gasoline | 6.287 | 6,778 | 6.825 | 6,638 | 6,633 |
| Aviation Fuels | 1.153 | 1,105 | 1.128 | 1,112 | 1,124 |
| Middle Distillates | 3.352 | 2,693 | 2.561 | 3,084 | 2,921 |
| Residual Fuel Oil | 1.695 | 1.366 | 1.382 | 1.466 | 1,476 |
| Liquefied Gases | 1.731 | 1.269 | 1.361 | 1.699 | 1,514 |
| Other Products | 1.674 | 2,015 | 2.188 | 1,920 | 1,951 |
| Total | **15,892** | **15,226** | **15,445** | **15,919** | **15,619** |
| Exports | 581 | 667 | 646 | 664 | 641 |
| **Total Demand** | **16,473** | **15,893** | **16,091** | **16,583** | **16,260** |
| **Stock Changes** | **−392** | **224** | **408** | **−177** | **16** |
| **Total Supply** | | | | | |
| **Domestic Production:** | | | | | |
| Crude Oil | 8.680 | 8.683 | 8.647 | 8.632 | 8.660 |
| Natural Gas Liquids | 1.604 | 1,522 | 1,544 | 1.581 | 1,563 |
| **Total production** | **10.284** | **10,205** | **10,191** | **10.213** | **10,223** |
| **Imports:** | | | | | |
| Crude Oil** | 3.050 | 3,565 | 3.900 | 3.701 | 3,557 |
| Motor Gasoline | 291 | 250 | 255 | 232 | 257 |
| Aviation Fuels | 68 | 31 | 36 | 37 | 43 |
| Middle Distillates | 301 | 159 | 190 | 206 | 214 |
| Residual Fuel Oil | 920 | 681 | 708 | 750 | 764 |
| Liquefied Gases | 232 | 171 | 186 | 244 | 208 |
| Other Products | 369 | 320 | 307 | 302 | 324 |
| **Total Imports** | **5,231** | **5,177** | **5,582** | **5,472** | **5,367** |
| Other Supply*** | 566 | 735 | 726 | 721 | 686 |
| **Total Supply** | **16,081** | **16,117** | **16,499** | **16,406** | **16,276** |
| **Closing Stocks:** | | | | | |
| (Million Barrels) | | | | | |
| Motor Gasoline | 242.4 | 232.5 | 228.0 | 229.5 | 229.5 |
| Aviation Fuels | 41.9 | 41.7 | 42.1 | 41.7 | 41.7 |
| Middle Distillates | 117.2 | 123.3 | 156.2 | 155.2 | 155.2 |
| Residual Fuel Oil | 48.9 | 49.5 | 48.8 | 47.9 | 47.9 |
| Liquefied Gases | 83.4 | 105.4 | 118.1 | 105.7 | 105.7 |
| Other Products | 50.3 | 49.6 | 44.3 | 46.0 | 46.0 |
| **Total Products** | **584.1** | **602.0** | **637.5** | **626.0** | **626.0** |
| Unfinished Oils | 113.4 | 111.2 | 111.8 | 108.6 | 108.6 |
| Natural Gas Liquids | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 |
| Crude Oil** | 332.4 | 337.1 | 338.5 | 336.9 | 336.9 |
| **Total Inventories** | **1,038.4** | **1,058.8** | **1,096.3** | **1,080.0** | **1,080.0** |
| **Crude Runs to Stills** | **11,602** | **12,158** | **12,460** | **12,272** | **12,124** |

---

**Excludes Strategic Petroleum Reserve imports and stocks

***Processing gain, unaccounted crude and other hydrocarbons

Source: Independent Petroleum Assn. of America, Supply and Demand Committee, May 1984

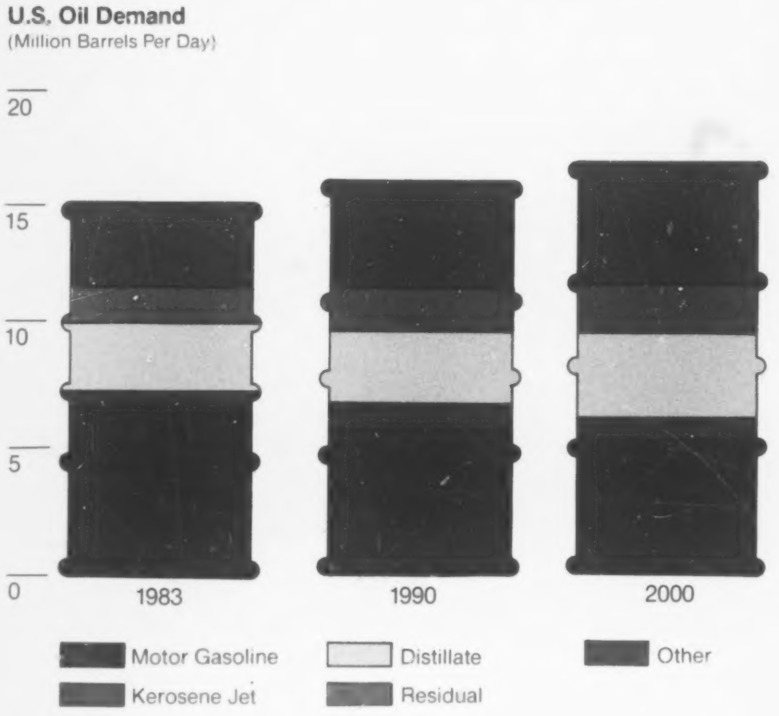
# U.S. Supply/Demand Projections—1983-2000

**This is what's ahead for the U.S. industry, according to a long-range forecast by Conoco, Inc.:**

- Growth will be limited to about 0.5% per year. Gasoline demand will fall with improvements in fleet efficiency. Distillate use will rise slowly from rising transport requirements. Resid will recover a bit from recent declines.
- U.S. petroleum demand, which peaked at 19-million b/d in 1978 and fell to 15-million b/d in 1983, is expected to turn upward, rising to 16.5-million b/d by 2000.
- Gasoline use, which peaked at 7.5-million b/d in 1978, will fall 1% annually. Lower gasoline prices have led to a slower rate of improvement in new vehicle fuel efficiency, but the average fleet efficiency will continue to rise as older, less efficient cars are replaced by new ones. Real product price increases in the 1990s will hurry along improvements in fleet efficiency. Approaching saturation of auto use, an aging population (which tends to drive less), and slower economic growth also will contribute to the demand decline.
- Distillate use is expected to rise 1% per year through the year 2000. Increasing diesel fuel demand for transportation will be countered only partially by reduced home heating and industrial use.
- Residual fuel oil consumption, which has fallen 50% from its 1979 peak of 3-million b/d, is forecast to recover somewhat during the next several years. The combination of (1) the economic upturn, (2) reduced expectations regarding nuclear electricity generation, and (3) improved price competitiveness of resid compared to coal will contribute greatly to the recovery.
- Declining U.S. petroleum liquids output, especially after 1990, will fall far short of demand. Total domestic petroleum liquids output is expected to fall to 9-million b/d by the year 2000, a decrease of 1% per year from 1983. This is largely the result of natural decline in crude oil production from mature fields.

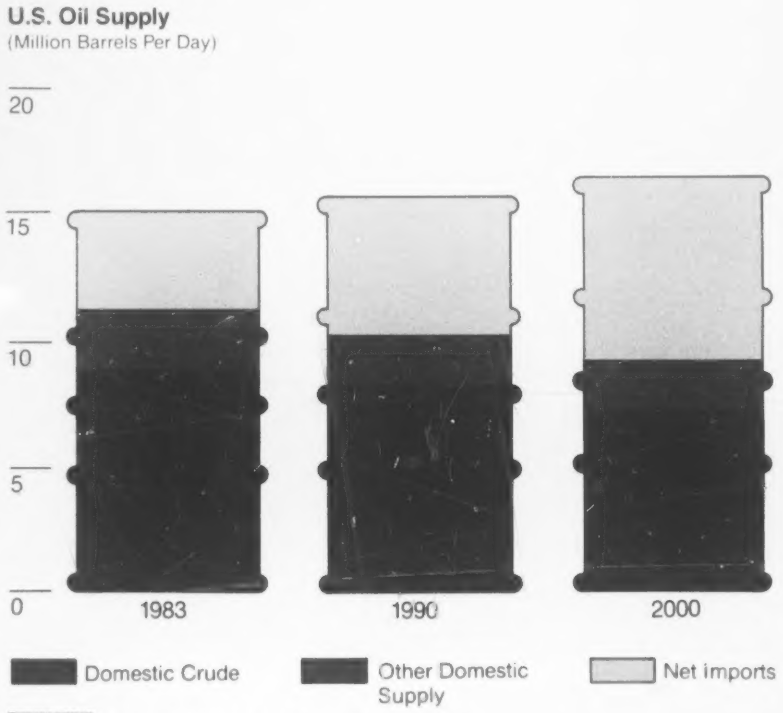
Alaskan North Slope production will peak at almost 2-million b/d in 1990 and fall to less than 1.5-million b/d in 2000, reflecting the decline of the giant Prudhoe Bay Field. Total U.S. crude oil production will fall to 7-million b/d by 2000, down from 8.5-million b/d currently.

As a consequence, the United States will experience an acute increase in dependence on imported oil, from 4-million b/d in 1983 to 7.5-million b/d in 2000. Imports will supply 45% of U.S. oil demand by the end of the forecast period, up from 26% currently. Most of the additional imports probably will have to be obtained from OPEC nations.



**U.S. Oil Demand**

(Million Barrels Per Day)



**U.S. Oil Supply**

(Million Barrels Per Day)

Source: Conoco Inc., "World Energy Outlook Through 2000," April 1984

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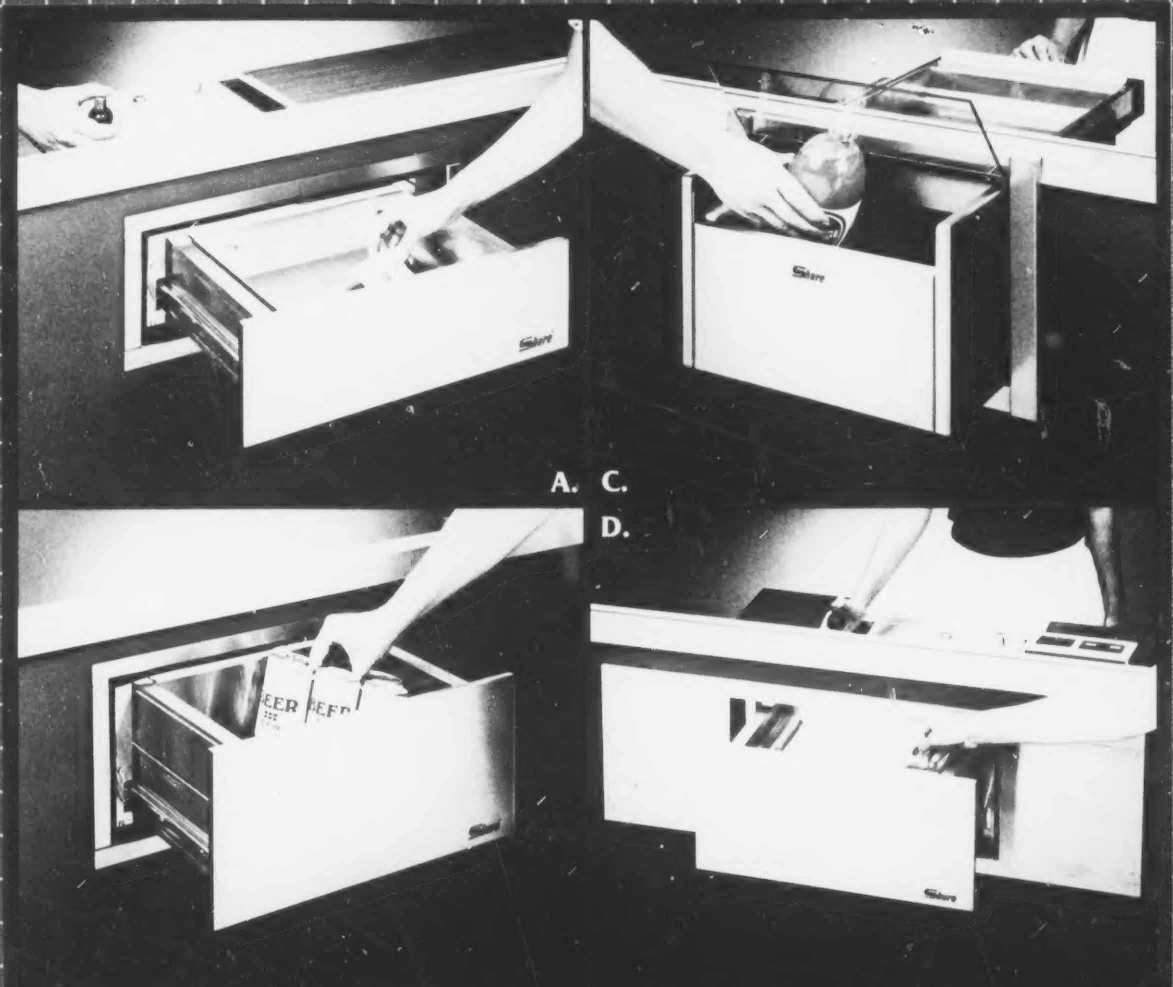
The Shuresafe® Transaction Systems are constructed of stainless steel,
bullet-resistant materials. They offer extended protection for your
employees and for drive-in/walk-up business transactions.



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# All-Time Total, Wells Drilled in U.S. (a)

| | OIL | | GAS | | DRY | | TOTAL |
|---|---|---|---|---|---|---|---|
| | Number | % | Number | % | Number | % | Number |
| **PAD District 1** | | | | | | | |
| **Florida** | 246 | 27.6 | 4 | 0.4 | 641 | 72.0 | 891 |
| **Maryland** | 0 | 0 | 72 | 61.5 | 45 | 38.5 | 117 |
| **New York** | 9,001 | 68.8 | 3,083 | 23.6 | 999 | 7.6 | 13,083 |
| **Pennsylvania** | 245,845 | 79.3 | 25,626 | 8.2 | 38,373 | 12.3 | 309,884 |
| **Virginia** | 43 | 8.5 | 345 | 68.6 | 115 | 22.9 | 503 |
| **West Virginia** | 46,870 | 43.7 | 40,942 | 38.2 | 19,374 | 18.1 | 107,186 |
| **Total** | **302,005** | **69.9** | **70,072** | **16.2** | **59,547** | **13.7** | **431,624** |
| **PAD District 2** | | | | | | | |
| Illinois | 73,144 | 61.1 | 1,415 | 1.2 | 45,201 | 37.7 | 119,760 |
| Indiana | 36,849 | 45.4 | 2,075 | 2.3 | 23,053 | 52.3 | 61,977 |
| Kansas | 109,070 | 51.6 | 20,735 | 9.8 | 81,714 | 38.6 | 211,519 |
| Kentucky | 47,453 | 52.4 | 9,868 | 10.9 | 33,259 | 36.7 | 90,580 |
| Michigan | 12,991 | 39.8 | 2,566 | 7.9 | 17,099 | 52.3 | 32,656 |
| Missouri | 579 | 33.6 | 193 | 11.2 | 949 | 55.2 | 1,721 |
| Nebraska | 4,859 | 30.4 | 190 | 1.2 | 10,909 | 68.4 | 15,958 |
| North Dakota | 4,399 | 49.8 | 83 | 0.9 | 4,359 | 49.3 | 8,841 |
| Ohio | 67,688 | 46.2 | 42,894 | 29.3 | 35,819 | 24.5 | 146,401 |
| Oklahoma | 214,994 | 60.4 | 38,830 | 10.9 | 102,301 | 28.7 | 356,125 |
| South Dakota | 159 | 16.7 | 56 | 5.9 | 737 | 77.4 | 952 |
| Tennessee | 1,165 | 27.0 | 942 | 21.8 | 2,215 | 51.2 | 4,322 |
| **Total** | **573,350** | **54.5** | **119,847** | **11.4** | **357,615** | **34.0** | **1,050,812** |
| **PAD District 3** | | | | | | | |
| **Alabama** | 826 | 24.4 | 510 | 15.1 | 2,045 | 60.5 | 3,381 |
| **Arkansas** | 16,582 | 54.4 | 2,578 | 8.5 | 11,346 | 37.1 | 30,506 |
| **Louisiana** | 74,352 | 46.0 | 26,950 | 16.7 | 60,356 | 37.3 | 161,658 |
| **Mississippi** | 6,930 | 32.8 | 1,139 | 5.4 | 13,067 | 61.8 | 21,136 |
| **New Mexico** | 26,897 | 49.3 | 16,034 | 29.4 | 11,608 | 21.3 | 54,539 |
| **Texas** | 445,016 | 58.7 | 63,797 | 8.4 | 248,662 | 32.9 | 757,475 |
| **Total** | **570,603** | **55.4** | **111,008** | **10.7** | **347,084** | **33.7** | **1,028,695** |
| **PAD District 4** | | | | | | | |
| Colorado | 8,778 | 27.2 | 5,288 | 16.3 | 18,301 | 56.5 | 32,367 |
| Montana | 9,743 | 36.8 | 3,889 | 14.9 | 12,799 | 48.3 | 26,431 |
| Utah | 2,687 | 38.7 | 1,049 | 15.1 | 3,210 | 46.2 | 6,946 |
| Wyoming | 23,514 | 51.7 | 3,244 | 7.1 | 18,683 | 41.2 | 45,441 |
| **Total** | **44,722** | **40.2** | **13,470** | **12.1** | **52,993** | **47.6** | **111,185** |
| **PAD District 5** | | | | | | | |
| **Alaska** | 1,063 | 65.2 | 114 | 6.9 | 453 | 27.7 | 1,630 |
| **Arizona** | 53 | 11.5 | 34 | 7.4 | 374 | 81.1 | 461 |
| **California** | 97,873 | 77.5 | 2,934 | 2.3 | 25,516 | 20.2 | 126,323 |
| **Nevada** | 33 | 11.7 | 1 | 0.4 | 248 | 87.9 | 282 |
| **Oregon** | 0 | 0 | 11 | 3.8 | 281 | 96.2 | 292 |
| **Total** | **99,022** | **76.7** | **3,094** | **2.3** | **26,872** | **20.8** | **128,988** |
| Atlantic Coast | 0 | 0 | 0 | 0 | 29 | 100.0 | 29 |
| Gulf of Mexico Northern | 58 | 21.8 | 13 | 4.5 | 196 | 73.7 | 267 |
| Pacific Coast | 0 | 0 | 0 | 0 | 4 | 100.0 | 4 |
| **Total Federal Waters** | **58** | **16.0** | **13** | **0.8** | **229** | **83.4** | **300** |
| Miscellaneous | 3 | 1.0 | 0 | 0.3 | 554 | 98.7 | 557 |
| **TOTAL** | **1,589,763** | **57.7** | **317,504** | **11.5** | **844,894** | **30.6** | **2,752,161** |

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(a) To Jan. 1, 1983; totals exclude service wells.

Source: Independent Petroleum Assn. of America, The Oil Industry in Your State-1983

# Storage Capacity for Crude Oil and Products

**The U.S. oil industry's shell capacity for its primary distribution system shrank modestly in 1983, but there's nothing to be concerned about.** The industry has sufficient idle capacity that can be brought back into operation within 90 days or less that would boost total capacity to an all-time high. At the same time in 1983, the working inventories for major products also declined modestly, reflecting the continuing decrease in consumption.

The studies were made by the National Petroleum Council as a follow-up to previous studies made in 1978. Another study on the secondary distribution system recently was finished and is now available. [See page 138.]

Here are the highlights of the report that was issued last November—remembering, of course, that the data is for the primary distribution system only:

## Primary Storage Capacity —1978 and 1983

(millions of bbl.)

| | 3 31 78 | | 3 31 83 | | |
|---|---|---|---|---|---|
| | Tankage in Operation | Under Construction | Tankage in Operation | Under Construction | Idle But Available |
| Crude oil | 462 | 12 | 493 | 10 | 16* |
| Gasoline | 464 | 5 | 456 | 3 | 7 |
| Kerosine | 86 | 1 | 21 | 1 | 1 |
| Kero-Jet Fuel | | | 68 | — | 3 |
| Distillate | 336 | 3 | 295 | 1 | 18* |
| Residual | 156 | 1 | 143 | 4 | 13* |
| Total | 1,504 | 22 | 1,482 | 19 | 58 |

*Includes some that requires environmental waivers to restore to operation

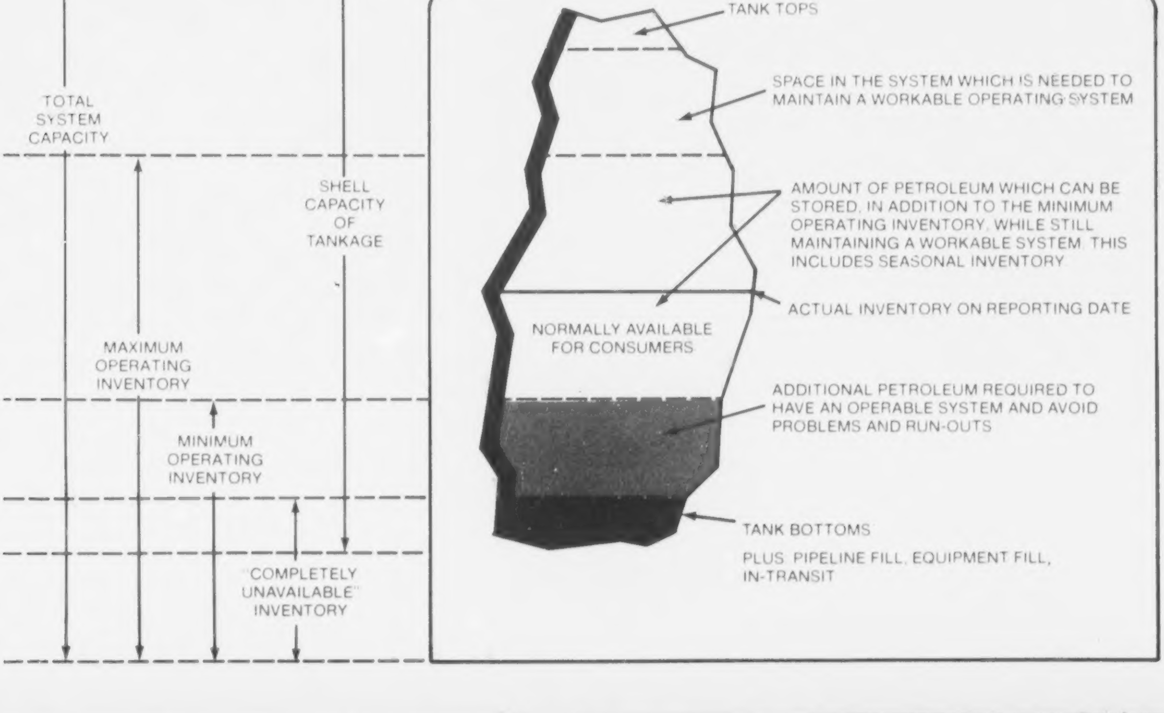
## Primary Minimum Operating Inventories—1979 and 1983

(millions of bbl.)

| | 1979 | 1983 | | | U.S. |
|---|---|---|---|---|---|
| | Total U.S. | PADs 1-4 | PAD 5 | Total U.S. | Decrease '83 vs '79 |
| Crude oil | 290 | 215 | 70 | 285 | 5 |
| Gasoline | 210 | 176 | 24 | 200 | 10 |
| Kerosine | 35 | 5 | — | 5 | 5 |
| Kero-Jet Fuel | | 20 | 5 | 25 | |
| Distillate | 125 | 97 | 8 | 105 | 20 |
| Residual | 60 | 34 | 6 | 40 | 20 |
| Total | 720 | 547 | 113 | 660 | 60 |

Source: (both tables) National Petroleum Council, Petroleum Inventories and Storage Capacity, November 1983.

### Simplified Diagram of Terms Describing Petroleum Inventories and Storage Capacities


TOTAL SYSTEM CAPACITY
SHELL CAPACITY OF TANKAGE
MAXIMUM OPERATING INVENTORY
MINIMUM OPERATING INVENTORY
COMPLETELY UNAVAILABLE INVENTORY
TANK TOPS
SPACE IN THE SYSTEM WHICH IS NEEDED TO MAINTAIN A WORKABLE OPERATING SYSTEM
AMOUNT OF PETROLEUM WHICH CAN BE STORED, IN ADDITION TO THE MINIMUM OPERATING INVENTORY, WHILE STILL MAINTAINING A WORKABLE SYSTEM. THIS INCLUDES SEASONAL INVENTORY
ACTUAL INVENTORY ON REPORTING DATE
NORMALLY AVAILABLE FOR CONSUMERS
ADDITIONAL PETROLEUM REQUIRED TO HAVE AN OPERABLE SYSTEM AND AVOID PROBLEMS AND RUN-OUTS
TANK BOTTOMS
PLUS: PIPELINE FILL, EQUIPMENT FILL, IN-TRANSIT

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This commercial unit represents an investment of more than a quarter of a billion dollars—not counting the time, energy and capital it took to develop RCC Process technology. We think they are dollars well spent.

Ashland will be able to produce more gasoline and other transportation fuels from the same amount of crude oil we process now. That means we'll be able to grow with you in seeking new business opportunities.

PREM. UNLEADED
2

We'll also be more competitive—pricing our products so that you can be more competitive in the marketplace, too.

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## ESTIMATED STORAGE CAPACITY AND INVENTORY in the U.S. PETROLEUM DISTRIBUTION SYSTEM (as of March 31, 1983)

(millions of bbl.)

| | Primary | | | Secondary | | | Tertiary | | | Total U.S. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Capacity | Inventory | % Utilized | Capacity | Inventory | % Utilized | Capacity | Inventory | % Utilized | Capacity | Inventory | % Utilized |
| Gasoline | 456 | 223 | 48.9% | 101 | 35 | 34.7% | 103 | 42 | 40.8% | 660 | 301 | 45.6% |
| Kerosine | 21 | 9 | 42.9 | 4 | 1 | 25.0 | (a) | (a) | — | 25 | 10 | 40.0 |
| Kero-Jet fuel | 68 | 35 | 51.5 | — | — | — | 21 | 11 | 52.4 | 89 | 46 | 51.7 |
| Distillate fuel oil | 295 | 118 | 40.0 | 42 | 10 | 23.8 | 282 | 131 | 46.5 | 619 | 259 | 41.8 |
| Residual fuel oil | 143 | 46 | 32.2 | 6 | 2 | 33.3 | 237 | 86 | 36.3 | 386 | 134 | 34.7 |
| Total (b) | 984 | 431 | 43.8% | 153 | 48 | 31.4% | 642 | 269 | 41.9% | 1,779 | 748 | 42.0% |
| Crude oil (c) | 499 | 313 | 62.7% | — | — | — | — | — | — | 499 | 313 | 62.7% |

---

(a) Included in distillate fuel oil for the tertiary storage segment; (b) Totals include surveyed products only. These inventory levels and utilization of storage capacity represent satisfactory levels under normal operating conditions, according to NPC. Totals may not add due to independent rounding; (c) Excludes 31-million bbl. of Alaskan North Slope crude oil in transit.
Source: National Petroleum Council, Study of Petroleum Inventories and Storage Capacity, April 1984

# Secondary/Tertiary Storage Capacity—1983

**In the early part of 1984, the National Petroleum Council took a hard look at the secondary and tertiary storage capacities of the oil marketing industry for the first time.**

In the past, the Council said, the secondary and tertiary reports were primarily estimates rather than detailed reviews.

The Council defined the secondary distribution system as: **Bulk Plants**—storage facilities that have a total storage capacity of less than 50,000 bbl. and do not receive petroleum products by barge, ship or pipeline; **Retail Motor Fuel Outlets**—service stations, truck stops, etc. It defined **Tertiary Storage Capacity** as the end users—the utilities, agricultural, commercial, residential, transportation, etc.

Here are the findings, as reported in a draft report prepared for NPC approval in late June:

### Estimated Storage Capacity and Inventory in the Secondary Distribution System on 3/31/1983

| (millions of bbl.) | Storage Capacity | Inventory |
|---|---|---|
| Motor gasoline | 101 | 35 |
| Kerosine | 4 | 1 |
| Diesel distillate fuel oil | 42 | 10 |
| Residual fuel oil | 6 | 2 |
| **Total*** | **153** | **48** |

*Totals include survey products only

NPC, for the purposes of this study, estimated there were approximately 18,000 companies owning or operating bulk plants in the U.S. on March 31, 1983. It cited these specifics:

### Estimated Storage Capacity and Inventory at Bulk Plants as of 3/31/83

| (millions of bbl.) | Storage Capacity | Inventory |
|---|---|---|
| Motor Gasoline | 22 | 9 |
| Kerosine | 4 | 1 |
| Diesel distillate fuel oil | 17 | 8 |
| Residual Fuel oil | 6 | 2 |
| **Total*** | **69** | **20** |

*Totals include products surveyed only

Data from several sources were analyzed to determine the number of retail motor fuel outlets as well as their storage capacity and inventories. It was determined that as of March 31, 1983, there were approximately 210,000 retail outlets in the U.S. with an estimated storage capacity of 16,800 gal. and an inventory of about 5,600 gal. The total storage capacity at retail outlets, as of March 31, 1983, was estimated to have been 3,528,000,000 gal., with inventories about 1,176,000,000 gal. This is the breakout:

### Estimated Storage Capacity and Inventory at Retail Motor Fuel Outlets as of 3/31/83

| (millions of bbl.) | Storage Capacity | Inventory |
|---|---|---|
| Motor Gasoline | 79 | 26 |
| Diesel distillate fuel oil | 5 | 2 |
| **Total*** | **84** | **28** |

*Totals include surveyed products only

For purposes of the NPC study, the tertiary storage segment was divided into seven sectors, as follows:

### Estimated Storage Capacity and Inventory in the Tertiary Storage Segment as of 3/31/83

| (millions of bbl.) | Storage Capacity | Inventory |
|---|---|---|
| **By Sector** | | |
| Agricultural | 41 | 14 |
| Commercial | 37 | 8 |
| Electric utilities | 213 | 91 |
| Industrial | 61 | 17 |
| Military Government | 56 | 23 |
| Residential | 100 | 55 |
| Transportation | 134 | 61 |
| **Total of Sectors*** | **642** | **269** |
| **By Products** | | |
| Motor Gasoline | 103 | 42 |
| Kerosine, diesel and distillates | 282 | 131 |
| Kero-Jet fuel | 21 | 11 |
| Residual fuel oil | 237 | 86 |
| **Totals*** | **642** | **269** |

*Totals included surveyed products only; totals may not add due to independent rounding

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Red Thread II pipe, listed by Underwriters' Laboratories for nonmetallic underground piping for petroleum products, is the best service station piping you can specify and use today. Why?

Red Thread II fiber glass reinforced epoxy piping is corrosion resistant to gasoline, kerosene, jet fuel, fuel oil, and corrosive soils. In these days of increased emphasis on environmental protection, that's most important. In addition, A. O. Smith-Inland recommends versatile Red Thread II piping for conveying varying concentrations of ethanol and methanol.

Want more? Red Thread II pipe is also lightweight...and it's faster and easier than ever to install with the exclusive factory-supplied A. O. Smith-Inland T.A.B.™ (Threaded and Bonded) Joint (illustrated). Red Thread II pipe has a long trouble-free life expectancy which makes it very cost competitive with metal piping.

Want still more? How about this testimonial: through the last decade and a half, more Red Thread has been installed in service stations than all competition of its kind combined. Check out Red Thread II piping for your next service station jobs.

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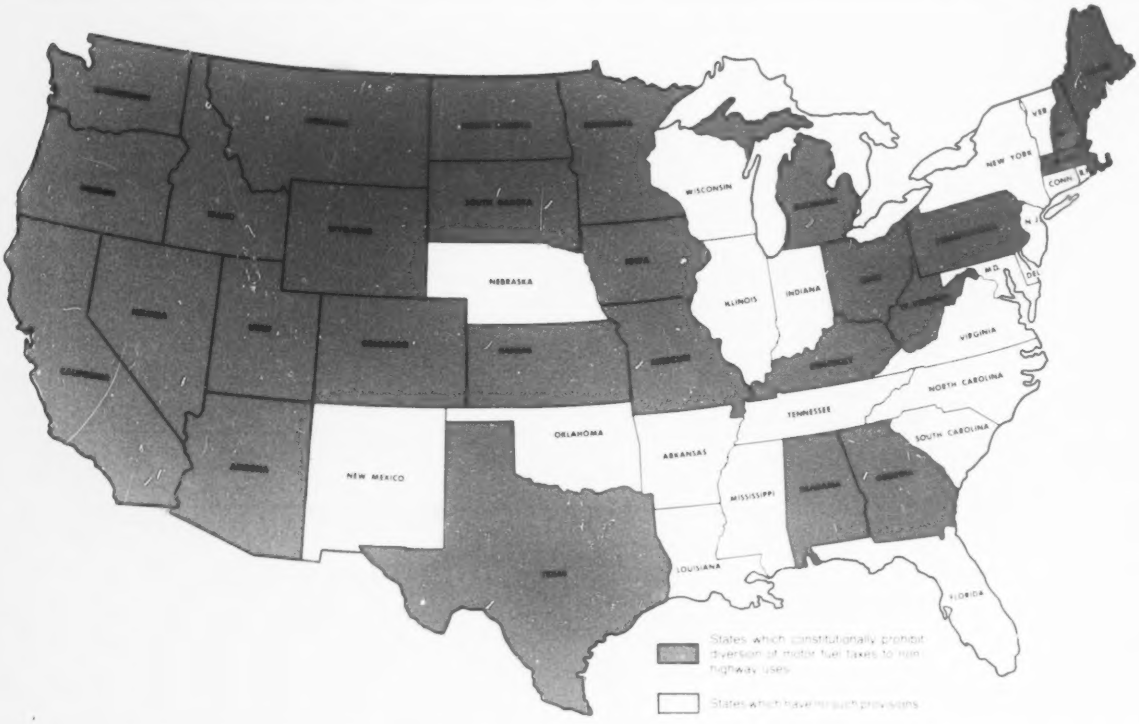


# 1983 Tax Collections

## State

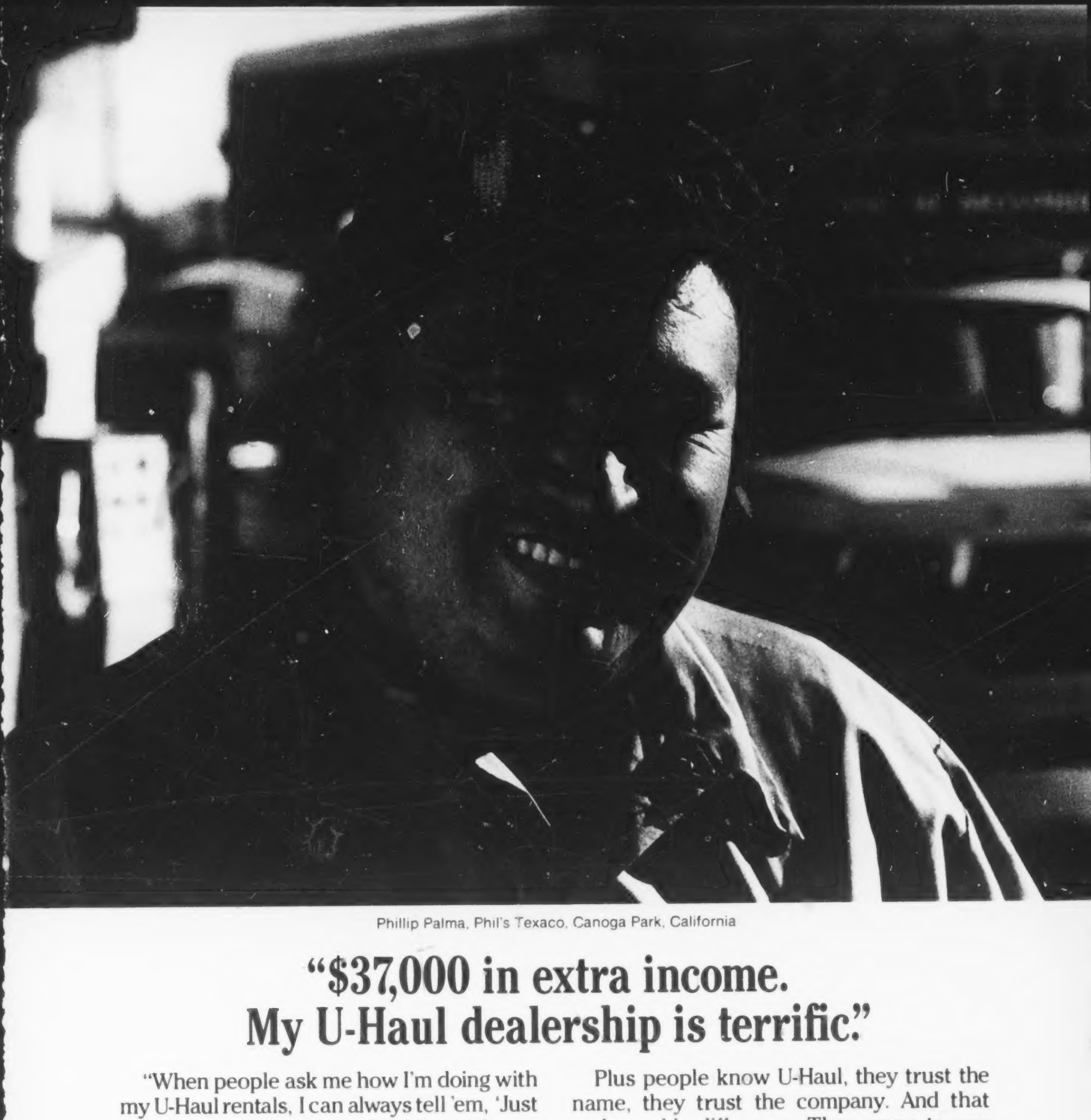
| State | Gasoline tax rates per gal. in 1983 | Total state motor fuel tax revenues (Add 000) 1983 | 1982 | % Change |
|---|---|---|---|---|
| Alabama | 11.0c | $248,305 | $244,733 | 1.5% |
| Alaska | 8.0 | 18,969 | 18,782 | 1.0 |
| Arizona | 10.0 | 179,214 | 132,770 | 35.0 |
| Arkansas | 5.5 | 128,170 | 127,574 | 0.5 |
| California | 7.0 | 1,077,282 | 811,789 | 32.7 |
| Colorado | 9.0 | 176,111 | 130,150 | 27.5 |
| Connecticut | 11.0 | 188,887 | 154,206 | 22.5 |
| Delaware | 11.0 | 37,988 | 33,795 | 12.4 |
| Dist. of Columbia | 14.0 | 27,198 | 21,791 | 24.8 |
| Florida | 8.0 | 516,450 | 423,549 | 21.9 |
| Georgia | 7.5 | 255,781 | 250,157 | 2.2 |
| Hawaii | 8.5 | 27,880 | 27,422 | 1.7 |
| Idaho | 12.5 | 74,339 | 60,427 | 23.0 |
| Illinois | 7.5 | 475,334 | 365,043 | 29.5 |
| Indiana | 11.1 | 321,904 | 319,297 | 0.8 |
| Iowa | 13.0 | 213,280 | 172,162 | 23.9 |
| Kansas | 8.0 | 131,553 | 117,590 | 11.9 |
| Kentucky | 10.0 | 196,600 | 197,454 | 0.4 |
| Louisiana | 8.0 | 193,838 | 193,311 | 0.3 |
| Maine | 9.0 | 72,687 | 49,694 | 46.2 |
| Maryland | 11.0 | 266,462 | 216,537 | 23.0 |
| Massachusetts | 10.4 | 258,992 | 260,305 | 0.5 |
| Michigan | 11.0 | 491,287 | 424,448 | 15.7 |
| Minnesota | 13.0 | 293,253 | 258,961 | 13.2 |
| Mississippi | 9.0 | 127,869 | 127,837 | 0.0 |
| Missouri | 7.0 | 216,485 | 191,603 | 13.0 |
| Montana | 9.0 | 69,107 | 47,544 | 45.3 |
| Nebraska | 14.0 | 130,248 | 115,988 | 12.3 |
| Nevada | 12.0 | 65,464 | 61,788 | 5.9 |
| New Hampshire | 14.0 | 61,627 | 59,577 | 3.4 |
| New Jersey | 8.0 | 296,323 | 289,318 | 2.4 |
| New Mexico | 10.0 | 98,583 | 85,896 | 14.8 |
| New York | 8.0 | 475,618 | 462,356 | 2.9 |
| North Carolina | 12.0 | 395,036 | 376,941 | 4.8 |
| North Dakota | 8.0 | 44,603 | 33,897 | 31.6 |
| Ohio | 11.7 | 613,752 | 576,225 | 6.5 |
| Oklahoma | 6.5 | 144,862 | 132,135 | 9.6 |
| Oregon | 8.0 | 115,358 | 95,544 | 20.7 |
| Pennsylvania | 11.0 | 742,853 | 720,515 | 3.1 |
| Rhode Island | 11.0 | 47,250 | 42,830 | 10.3 |
| South Carolina | 13.0 | 231,998 | 222,689 | 4.2 |
| South Dakota | 13.0 | 52,817 | 54,930 | 3.8 |
| Tennessee | 9.0 | 280,515 | 278,611 | 0.7 |
| Texas | 5.0 c | $511,263 | $498,864 | 2.5% |
| Utah | 11.0 | 84,447 | 81,251 | 3.9 |
| Vermont | 11.0 | 31,978 | 28,236 | 13.3 |
| Virginia | 11.0 | 411,755 | 340,000 | 21.2 |
| Washington | 12.0 | 307,780 | 240,846 | 27.8 |
| West Virginia | 10.5 | 123,516 | 98,55[illegible] | 25.3 |
| Wisconsin | 13.0 | 305,112 | 287,951 | 6.0 |
| Wyoming | 8.0 | 35,297 | 37,748 | 6.5 |
| **Total** | **9.07c** | **$11,893,280** | **$10,610,419** | **12.1%** |

Note: Gasoline taxes are for gasoline only. Total revenues include other receipts. 1983 data are estimates.
Source: Federal Highway Administration, Table SS82-2, October 1983.

## Federal (Add 000)

| Year | Gasoline(a) | Diesel and special fuels(a) | Lube oil(b) | Total |
|---|---|---|---|---|
| 1983(c) | $6,091,841 | $957,988 | $80,847 | $7,130,676 |
| 1982 | 4,120,013 | 594,083 | 76,181 | 4,790,277 |
| 1981 | 3,801,795 | 570,477 | 74,695 | 4,446,967 |
| 1980 | 4,019,481 | 518,352 | 78,835 | 4,616,668 |
| 1979 | 4,282,919 | 508,595 | 82,335 | 4,873,849 |
| 1978 | 4,381,950 | 488,064 | 79,047 | 4,949,061 |
| 1977 | 4,229,721 | 452,631 | 78,830 | 4,761,182 |
| 1976 | 4,140,924 | 408,560 | 70,135 | 4,619,619 |
| 1975 | 3,884,483 | 362,675 | 66,124 | 4,313,282 |
| 1974 | 3,854,505 | 373,302 | 78,155 | 4,305,962 |
| 1973 | 3,958,682 | 358,120 | 86,266 | 4,403,068 |
| 1972 | 3,736,545 | 321,551 | 85,841 | 4,143,937 |
| 1971 | 3,513,927 | 275,159 | 67,130 | 3,856,216 |
| 1970 | 3,408,505 | 264,815 | 65,862 | 3,739,182 |
| 1969 | 3,172,243 | 240,650 | 86,338 | 3,499,231 |

(a) 4¢/gal. in first quarter, then 9¢/gal. after April 1, 1984. (b) 6¢/gal. (c) Figures for 1983 are fiscal year gross collections that went to the Highway Trust Fund, since net IRS calendar year information was not available. All other figures represent calendar year net collections after refunds and include the taxes the federal government pays on its own purchases.
Source: U.S. Department of Transportation, Federal Highway Administration.



Phillip Palma, Phil's Texaco, Canoga Park, California

“$37,000 in extra income. My U-Haul dealership is terrific.”

“When people ask me how I'm doing with my U-Haul rentals, I can always tell 'em, ‘Just great.’ Last year my dealership made me $37,000 — that's extra income, and it comes in every month.

It's a terrific set-up. You just rent out the equipment. There's no fee, nothing to pay. How can you lose? U-Haul is good equipment, good management. And they take care of the advertising. That brings in customers. Be good to them and they'll keep coming in.

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Would I recommend it? Absolutely.”

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To find out how you can become a U-Haul dealer, call John Huemmrich, U-Haul International (toll-free) 1-800-528-0361, or write P.O. Box 21503, Dept. NPN, Phoenix, AZ 85036.

# THE NATIONAL VEHICLE POPULATION PROFILE (NVPP)

## FROM R.L. POLK

For more than 60 years, R. L. Polk & Co. has been the official scorekeeper for the car and truck manufacturers serving America.

Now, the recent development of the NVPP, a unique census of vehicles currently registered and in operation in the U.S., has positioned Polk on the "cutting edge" of the development of *new* and *powerful* market planning tools for the automotive aftermarket.

Armed with these tools, contemporary market planners will now maximize their effectiveness in such key decision areas as:

- Product Planning
- Distribution Planning
- Forecasting
- Advertising
- Sales Administration

## THE NVPP

describes domestic cars, import cars and trucks in terms of:

- Make (Chevrolet, Ford, Datsun, etc.)
- Series (Monte Carlo, Mustang, B-210, etc.)
- Body Style (2 door, coupe, van, etc.)
- Fuel Type (Gasoline, diesel)
- Engine Size (cylinder count, CID/cc, carburetion/fuel injection)
- Year Model (1968-82)

Geographically, it is compiled to the county, state and U.S. levels and can be summarized in your organization's unique territories, regions, etc.

**NVPP**

**INQUIRIES:**

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# Outlook for Tires and Batteries at Stations

| Year | Replacement passenger tire shipments: Total (in millions) | Station sales (a) (in millions) | Average per station (a) | Replacement automotive-type battery shipments: Total (in millions) | Station sales (a) (in millions) | Average per station (a) |
|---|---|---|---|---|---|---|
| 1983 | 134 | 26.8 | 196.2 | 56.1 | 16.8 | 123 |
| 1982 | 132 | 26.4 | 182.5 | 54.2 | 16.3 | 113 |
| 1981 | 126 | 25.2 | 166.6 | 53.6 | 16.1 | 106 |
| 1980 | 107 | 21.4 | 135 | 50.0 | 15.0 | 95 |
| 1979 | 122 | 24.4 | 148 | 53.7 | 16.1 | 102 |
| 1978 | 135 | 27.0 | 157 | 56.3 | 16.9 | 102 |
| 1977 | 130 | 26.0 | 148 | 54.6 | 16.4 | 95 |
| 1976 | 123 | 24.6 | 132 | 49.2 | 14.8 | 84 |
| 1975 | 125 | 23.7 | 125 | 42.6 | 12.7 | 67 |
| 1974 | 124 | 24.8 | 127 | 44.4 | 13.3 | 68 |
| 1973 | 142 | 28.4 | 130 | 43.5 | 13.1 | 60 |
| 1970 | 130 | 26.0 | 118 | 37.9 | 11.4 | 51 |

(a) Estimates based on service stations holding 20% of the replacement market, and 30% of the replacement battery market.
Source: Tire and battery totals from Rubber Manufacturers Assn. and Battery Council International and estimates by NPN.

# Battery Shipments Improve in 1983

**Battery shipments (replacement and original) showed marked improvement in 1983, according to Battery Council International.** Replacements were up 3.5%—56.1-million in 1983 versus 54.2-million in 1982. Original equipment shipments rose too, as the automotive industry experienced one of its best selling years in a long time. The total market soared toward the 70-million unit level.

(Add 000)

| Year | Replacements | % of Market | New cars & trucks | % of Market | Total market | % Change from previous year |
|---|---|---|---|---|---|---|
| 1983 | 56,105 | 83.8% | 10,823 | 16.2% | 66,928 | 7.9% |
| 1982 | 54,214 | 87.4 | 7,819 | 12.6 | 62,033 | 0.8 |
| 1981 | 53,598 | 87.1 | 7,956 | 12.9 | 61,554 | 6.0 |
| 1980 | 50,063 | 86.2 | 8,009 | 13.8 | 58,072 | 11.0 |
| 1979 | 53,746 | 82.4 | 11,480 | 17.6 | 66,226 | 6.2 |
| 1978 | 56,389 | 81.4 | 12,910 | 18.6 | 62,299 | 3.0 |
| 1977 | 54,601 | 81.2 | 12,639 | 18.8 | 67,240 | 10.8 |
| 1976 | 49,202 | 81.0 | 11,477 | 19.0 | 60,679 | 17.6 |
| 1975 | 42,562 | 32.5 | 8,985 | 17.6 | 51,567 | 5.3 |
| 1973 | 43,453 | 77.5 | 12,637 | 22.5 | 56,090 | 2.9 |
| 1970 | 37,389 | 81.9 | 8,239 | 18.1 | 45,629 | 0.5 |

Source: Replacement battery figures supplied by Battery Council International. New cars and trucks are U.S. factory sales figures provided by Motor Vehicle Manufacturers Assn.

# Replacement Batteries

**Replacement battery shipments totaled 56.1-million units in 1983, with 12-volt and 6-volt accounting for 89.9% of the total, according to Battery Council International. Here are the highlights of its annual report:**

**Replacement Batteries:**

Passenger cars and light trucks:

12-volt: 45,079,961, or 80.4% of the total; 6-volt: 1,282,698, or 2.3% of the total.

Heavy duty commercial:

12-volt: 2,379,621, or 4.2% of the total; 6-volt: 1,704,981, or 3.0% of the total.

**Original Equipment:**

Passenger cars and light trucks:

12-volt: 9,576,604, or 88.5% of the total; 6-volt: 34,445, or 0.3% of the total.

Heavy duty commercial:

12-volt: 499,847, or 4.6% of the total; 6-volt: 44,671, or 0.04% of the total.

Source: Battery Council International.

# Where Batteries Are Sold

Shipments in Units

| Channels of Distribution | 1983 Private Brands | 1983 Mfg. Own Brand | 1983 Total | 1982 Private Brands | 1982 Mfg. Own Brand | 1982 Total |
|---|---|---|---|---|---|---|
| Gasoline and Oil | 1,932,053 | 220,317 | 2,152,370 | 2,396,499 | 325,937 | 2,722,436 |
| Tires and Rubber | 2,371,630 | 280,174 | 2,651,804 | 1,850,808 | 331,496 | 2,182,304 |
| Department and Discount Stores | 13,146,744 | 71,119 | 13,217,863 | 14,155,053 | 178,791 | 14,333,844 |
| Auto Chains and Others | 5,439,699 | 522,726 | 5,962,425 | 4,938,424 | 240,926 | 5,179,350 |
| Fleet Operations | 8,121 | 338,655 | 346,776 | 6,564 | 300,879 | 307,443 |
| Vehicle & Equipment Mfrs. | 2,055,998 | 331,847 | 2,387,845 | 2,745,089 | 352,937 | 3,098,026 |
| Parts Distribution | 4,098,283 | 5,199,135 | 9,297,418 | 3,785,244 | 5,028,640 | 8,813,884 |
| Battery Specialists | 13,237,648 | 3,885,005 | 17,122,653 | 11,891,449 | 3,759,963 | 15,651,412 |
| Other | 346,137 | 195,305 | 541,442 | 260,064 | 295,342 | 555,406 |
| **Total** | **42,636,313** | **11,044,283** | **53,680,596** | **42,029,194** | **10,814,911** | **52,844,105** |

Source: Battery Council International; figures based on estimates submitted by 20 member firms.

# Tire Shipments Blossom in 1983

**Tire shipments bounced upwards in 1983, reflecting increases in new car sales. After 1982's floundering, this was good news for the tire manufacturers, who haven't had too much to be glad about in recent years.**

All of the tire shipments were up in 1983 except those of original equipment for farm vehicles. These fell off 9%, indicating, perhaps, a slowing down of farm equipment purchases pending better times.

| '83 vs. '82 | Passenger Motorcycles | Bus Truck | Farm Equipment | Total by Type of Market |
|---|---|---|---|---|
| Original Equipment | + 28.6% | + 18.6% | 9.0% | + 26.5% |
| Replacement | + 2.5 | + 7.6 | + 3.9 | + 3.4 |
| Export | + 40.6 | + 6.6 | + 17.3 | + 31.8 |
| **Total by Type** | **+ 8.4%** | **+ 9.1%** | **+ 0.4%** | — |

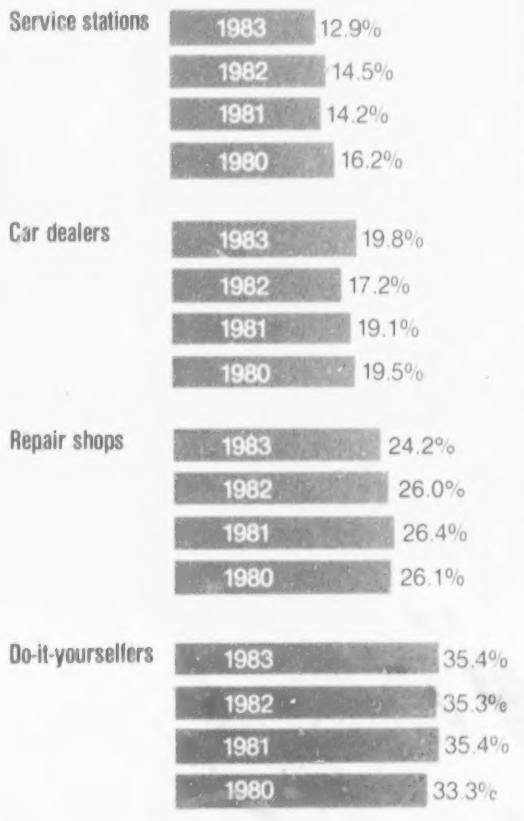
Source: NPN, based on Rubber Manufacturers Assn. Monthly Statistical Report.

## Auto, Truck and Farm Tire Shipments

| | Type of Tire (Add 000) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Passenger Motorcycle | % of Market | Bus Truck | % of Market | Farm Equipment | % of Market | Total of Market Type | % of Total |
| **1983** | | | | | | | | |
| Original Equipment | 43,912 | 87.2% | 5,519 | 11.0% | 912 | 1.8% | 50,543 | 22.3% |
| Replacement | 134,818 | 80.6 | 30,301 | 18.1 | 2,191 | 1.3 | 167,310 | 75.0 |
| Export | 4,290 | 78.6 | 1,030 | 18.9 | 135 | 2.5 | 5,455 | 2.4 |
| **Total** | **183,020** | **82.0%** | **36,850** | **16.5%** | **3,238** | **1.5%** | **223,108** | — |
| **1982** | | | | | | | | |
| Original Equipment | 34,150 | 85.8% | 4,652 | 11.7% | 1,003 | 2.8% | 39,805 | 19.3% |
| Replacement | 131,563 | 81.3 | 28,149 | 17.4 | 2,108 | 1.3 | 161,820 | 78.6 |
| Export | 3,051 | 73.8 | 966 | 23.4 | 115 | 2.8 | 4,132 | 2.0 |
| **Total** | **168,764** | **82.0%** | **33,767** | **16.4%** | **3,226** | **1.6%** | **205,757** | — |

Source: Rubber Manufacturers Assn., Monthly Statistical Report

## Where consumers get tuneups



Source: Champion Spark Plug Co.

## 1983 Ethylene Glycol-Base Antifreeze Sales

| | (Add 000 gal.) Civilian | Government |
|---|---|---|
| Packaged ethylene glycol antifreeze in quarts | 204,890 | -0- |
| in gallons | 133,303,749 | -0- |
| in drums | 12,314,181 | -0- |
| **Total** | **145,822,820** | **-0-** |
| Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to packagers | 59,688,409 | -0- |
| Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to motor vehicle manufacturers for "drive-away" or factory fill use | 16,761,344 | -0- |
| **Grand total** | **222,272,573** | **(*)** |

## 1982 Ethylene Glycol-Base Antifreeze Sales

| | (Add 000 gal.) Civilian | Government |
|---|---|---|
| Packaged ethylene glycol antifreeze sold in quart and gallon sizes | 134,902,646 | -0- |
| in drums | 10,969,905 | (*) |
| **Total** | **149,872,551** | **(*)** |
| Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to packagers | 55,663,282 | (*) |
| Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to motor vehicle manufacturers for "drive-away" or factory fill use | 13,323,638 | |
| **Total** | **214,859,471** | **2,306,164** |
| **Grand total** (civ. and gov't.) | | **217,165,635** |

(*) Data not shown, except for total, to avoid disclosure of individual company data.
Source: Chemical Specialties Manufacturers Assn.

# Shrinkage Hurts But Helps Parts Business

**It was obvious in the way the Department of Commerce changed its population forecasts for 1983 and 1984 that the recession had taken a hefty toll in the automotive products and service business last year and would inhibit growth again this year.**

Nevertheless, with fewer places of business, the outlook per store brightened considerably. The Commerce Department predicted the 1983 sales average would r[illegible] $240,000 per store, up $17,000 over last year's forecast. It predicted also that the 1984 average would be around $253,000—an increase of 5.4% if all goes well.

The Commerce Department was rather negative in its forecast on the store population. Not only did it scale down its 1983 projection, it also suggested that 1984 would be a no-growth period, perhaps sinking back to the 1982 level.

## Automotive Products/Services (a)

| | 1984 (b) | 1983 (b) | 1982 |
|---|---|---|---|
| Total number of establishments | 36,660 | 37,241 | 36,614 |
| Company-owned | 4,358 | 4,275 | 4,233 |
| Franchisee-owned | 34,302 | 32,966 | 32,381 |
| Total sales of products and services (Add $000)(c) | 9,781,812 | 8,849,456 | 8,278,361 |
| Company-owned(c) | 3,052,068 | 2,828,114 | 2,609,805 |
| Franchisee-owned(c) | 6,729,744 | 6,121,342 | 5,658,756 |
| Average sales per establishment(c) | $253,000 | $240,000 | $226,000 |
| Company-owned | 700,000 | 662,000 | 616,000 |
| Franchisee-owned | 196,000 | 185,000 | 175,000 |

(a) Includes tire, battery and accessory stores; auto and truck wash services; and brake and muffler repair and service; (b) Data estimated by respondents; (c) Includes sales of non-automotive products such as household appliances, garden supplies, etc.
Source: Franchising in the Economy, 1982-1984, Bureau of Industrial Economics, U.S. Department of Commerce

# Drain Intervals

## 1984 Crankcase Drain Intervals and Recommended Oil

| | | Normal Service | | Severe Service | | |
|---|---|---|---|---|---|---|
| Make | Engine | Miles | Months | Miles | Months | Type Of Oil |
| American Motors | All | 7.500 | 7.5 | — | — | SF |
| Chrysler Corp | All (Ex-Turbo) | 7.500 | 12 | 3.000 | 3 | SF |
| | Turbo | 7.500 | 6 | 3.000 | 3 | SF-CC |
| Ford Motor Co | 4 (Turbo) | 5.000 | 12 | 3.000 | 3 | SF |
| | Turbo | 7.500 | 6 | 3.000 | 3 | SF-CC<br>SF-CD |
| | Others (Ex-Diesel) | 7.500 | 12 | 3.000 | 3 | SF<br>SF-CC<br>SF-CD |
| General Motors | Gasoline | 7.500(a) | 12 | 3.000(a) | 3 | SF<br>SF-CC<br>SF-CD |
| | 4-cyl Diesel | 3.750 | 12 | 2.000 | 3 | SF-CC |
| | 6&8-cyl Diesel | 5.000 | — | 2.500 | 3 | SF-CC<br>SF-CD |

(a) 4-cyl. turbo. 3.000 miles or 3 months
Source: Gousha Chek-Chart

## 1984 Automatic Transmission Drain Intervals and Recommended Fluids

| | | Normal Service | | Severe Service | |
|---|---|---|---|---|---|
| Make | Fluid | Months | Miles | Months | Miles |
| American Motors | Dexron®-II | 30 | 30.000 | — | — |
| Chrysler Corp | Dexron®-II (a) | — | (b) | — | 15.000 |
| Ford Motor Co | Dexron®-II (a)(c) | — | (b) | — | 30.000 |
| General Motors | Dexron®-II (a) | — | 100.000 | — | 15.000 |

(a) Including automatic transaxles
(b) Drain not required for normal service
(c) C-5 trans. uses type H Fluid
Source: Gousha Chek-Chart

## 1984 Chassis Lubrication Intervals

| | Normal Service | | Severe Service | | | |
|---|---|---|---|---|---|---|
| Make | Months | Miles | Months | Miles | Type | Part Specification No. |
| American Motors | 7.5 | 7.500(a) | Shorter - intervals | | #2 Lithium | 8993630 |
| Chrysler Corp | 36 | 30.000 | 18(a) | 15.000 | #2 Barium EP | 4318062 |
| Ford Motor Co | — | 30.000 | Shorter - intervals | | #2 Lithium (suspension) | MIC75-B |
| | | | | | #4-5 Lithium (steering) | MIC92-All |
| General Motors | | | | | | |
| Gasoline | 12 | 7.500 | Shorter - intervals | | #1-2 Multipurpose EP | 6031-M |
| Diesel | 12 | 5.000 | Shorter - intervals | | #1-2 Multipurpose EP | 6031-M7 |

(a) Except front-wheel drive models
Source: Gousha Chek-Chart. Reprinted with permission

# Service Job Analysis

| Job Number and Description | % Stations Performing | Total Jobs Performed (add 000) | by station size—repair volume (a) (add 000) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Under $20 | % of Jobs | $20-39 | % of Jobs | $40-59 | % of Jobs | $60-100 | % of Jobs | Over $100 | % of Jobs |
| Lube Jobs (Car) | 98.4 | 63.829 | 2.513 | 3.9 | 8.858 | 13.9 | 6.501 | 10.2 | 19.672 | 30.8 | 26.285 | 41.2 |
| Lube Jobs (Truck Bus) | 67.9 | 8.450 | 253 | 3.0 | 1.471 | 17.4 | 946 | 11.2 | 2.529 | 29.9 | 3.251 | 38.5 |
| Oil Changes (Car) | 96.6 | 68.121 | 2.816 | 4.1 | 8.961 | 13.2 | 7,107 | 10.4 | 20,704 | 30.4 | 28,533 | 41.9 |
| Oil Filters Replaced (Car) | 97.0 | 63.019 | 2.559 | 4.1 | 8.311 | 13.2 | 6.289 | 10.0 | 19.304 | 30.6 | 26.556 | 42.1 |
| Air Filters Replaced | 86.1 | 23.053 | 879 | 3.8 | 2.244 | 9.7 | 1.826 | 7.9 | 5.328 | 23.1 | 12,776 | 55.4 |
| Front Wheels Repacked (Car) | 84.3 | 11,602 | 242 | 2.6 | 1.162 | 12.2 | 926 | 9.8 | 2.568 | 27.1 | 4,588 | 48.4 |
| Oil Changes (Truck Bus) | 65.8 | 7,763 | 206 | 2.7 | 1.392 | 17.9 | 720 | 9.3 | 2.308 | 29.7 | 3,137 | 40.4 |
| Oil Filters Replaced (Truck Bus) | 63.1 | 6.631 | 158 | 2.4 | 1.222 | 18.4 | 574 | 8.7 | 1,751 | 26.4 | 2.926 | 44.1 |
| Carburetors Installed (New) | 24.3 | 557 | 9 | 1.6 | 38 | 6.8 | 30 | 5.4 | 115 | 20.6 | 365 | 65.5 |
| Carburetors Installed (Rebuilt) | 32.6 | 836 | 16 | 1.9 | 64 | 7.7 | 103 | 12.3 | 243 | 29.1 | 410 | 49.0 |
| Carburetors Cleaned on Vehicles | 44.8 | 3.431 | 41 | 1.2 | 240 | 7.0 | 265 | 7.7 | 664 | 19.4 | 2.221 | 64.7 |
| Carburetors Overhauled (In Shop) | 42.9 | 1,718 | 28 | 1.6 | 131 | 7.6 | 104 | 6.1 | 429 | 25.0 | 1,026 | 59.7 |
| Fuel Pumps Installed (New) | 52.7 | 1,476 | 32 | 2.2 | 120 | 8.1 | 115 | 7.8 | 393 | 26.6 | 816 | 55.3 |
| Fuel Pumps Installed (Rebuilt) | 18.0 | 514 | 37 | 7.2 | 64 | 12.5 | 45 | 8.8 | 169 | 32.9 | 199 | 38.7 |
| Fuel Filters Replaced | 84.2 | 13,496 | 301 | 2.2 | 1,252 | 9.3 | 1,110 | 8.2 | 3.507 | 26.0 | 7.326 | 54.3 |
| Engine Tune-Ups (Car) | 87.9 | 15,767 | 314 | 2.0 | 1,753 | 11.1 | 1,469 | 9.3 | 3.844 | 24.4 | 8,387 | 53.2 |
| Engine Tune-Ups (Truck Bus) | 41.4 | 1,871 | 23 | 1.2 | 206 | 11.0 | 158 | 8.4 | 422 | 22.6 | 1.062 | 56.8 |
| Spark Plugs (New) | 82.3 | 95.091 | 1,968 | 2.1 | 11,072 | 11.6 | 9,375 | 9.9 | 22.772 | 23.9 | 49.904 | 52.5 |
| Spark Plugs (Clnd Regapped Reinstalled) | 24.8 | 12.133 | 348 | 2.9 | 1.267 | 10.4 | 828 | 6.8 | 1.757 | 14.5 | 7,933 | 65.4 |
| Batteries Sold | 94.4 | 10,736 | 454 | 4.2 | 1.653 | 15.4 | 898 | 8.4 | 2.992 | 27.9 | 4,739 | 44.1 |
| Batteries Recharged | 97.1 | 22,773 | 1.017 | 4.5 | 3.328 | 14.6 | 2.617 | 11.5 | 5.944 | 26.1 | 9.807 | 43.3 |
| Battery Cables Sold | 82.7 | 6.631 | 304 | 4.6 | 1.082 | 16.3 | 569 | 8.6 | 1,611 | 24.3 | 3.065 | 46.2 |
| Alternators Installed (New) | 16.6 | 666 | 31 | 4.7 | 143 | 21.5 | 35 | 5.3 | 144 | 21.6 | 313 | 47.0 |
| Alternators Installed (Rebuilt) | 73.0 | 4.686 | 91 | 1.9 | 554 | 11.8 | 551 | 11.8 | 1.202 | 25.7 | 2.288 | 48.8 |
| Voltage-Regulators Installed (New) | 61.4 | 2.442 | 63 | 2.6 | 270 | 11.1 | 205 | 8.4 | 748 | 30.6 | 1,156 | 47.3 |
| Voltage-Regulators Installed (Rebit) | 7.3 | 269 | 10 | 3.7 | 46 | 17.1 | 72 | 26.8 | 55 | 20.4 | 86 | 32.0 |
| V-Belts Installed (All Types) | 92.4 | 21.908 | 97 | 4.4 | 2.978 | 13.6 | 1.992 | 9.1 | 5.626 | 25.7 | 10.341 | 47.2 |
| Radiator Hose Replaced (Rubber) | 87.7 | 9.908 | 476 | 4.8 | 1,527 | 15.4 | 1.055 | 10.6 | 2.222 | 22.4 | 4,628 | 46.7 |
| Heater Hose Replaced (Rubber) | 76.8 | 5.972 | 237 | 4.0 | 631 | 10.6 | 571 | 9.6 | 1,337 | 22.4 | 3,196 | 53.5 |
| Permanent Anti-Freeze Sold (Gals) | 90.6 | 30.408 | 1.546 | 5.1 | 4.051 | 13.3 | 2.640 | 8.7 | 7.663 | 25.2 | 14.508 | 47.7 |
| Mufflers Replaced (Car) | 78.2 | 5.083 | 118 | 2.3 | 574 | 11.3 | 479 | 9.4 | 1.028 | 20.2 | 2.884 | 56.7 |
| Mufflers Replaced (Truck Bus) | 24.5 | 638 | 15 | 2.4 | 116 | 18.2 | 56 | 8.8 | 124 | 19.4 | 327 | 51.3 |
| Tires Sold (Car-New) | 86.3 | 19.354 | 639 | 3.3 | 2.457 | 12.7 | 1,890 | 9.8 | 4.859 | 25.1 | 9.509 | 49.1 |
| Tires Sold (Truck Bus-New) | 24.9 | 1,671 | 15 | .9 | 156 | 9.3 | 146 | 8.7 | 470 | 28.1 | 884 | 52.9 |
| Retread Tires Sold (Car) | 22.4 | 1.929 | 95 | 4.9 | 401 | 20.8 | 291 | 15.1 | 479 | 24.8 | 663 | 34.4 |
| Retread Tires Sold (Truck Bus) | 5.5 | 449 | 0 | 0.0 | 41 | 9.1 | 32 | 7.1 | 145 | 32.3 | 231 | 51.4 |
| Tires Repaired | 96.9 | 57.142 | 3.562 | 6.2 | 9.586 | 16.8 | 5.922 | 10.4 | 14.302 | 25.0 | 23,770 | 41.6 |
| Tubes Sold (New) | 66.6 | 4.153 | 254 | 6.1 | 750 | 18.1 | 306 | 7.4 | 1.062 | 25.6 | 1,781 | 42.9 |
| Tubes Repaired | 78.8 | 5.676 | 520 | 9.2 | 940 | 16.6 | 375 | 6.6 | 1,486 | 26.2 | 2,355 | 41.5 |
| Engine Oil Additives Sold (Cans) | 68.3 | 8.795 | 732 | 8.3 | 1,472 | 16.7 | 907 | 10.3 | 2.017 | 22.9 | 3,667 | 41.7 |
| Gasoline Additives Sold (Cans) | 70.1 | 12.309 | 1,029 | 8.4 | 2,142 | 17.4 | 1,079 | 8.8 | 3.125 | 25.4 | 4,934 | 40.1 |
| Gear Lube Additives Sold (Cans) | 19.2 | 1.246 | 99 | 7.9 | 254 | 20.4 | 103 | 8.3 | 264 | 21.2 | 526 | 42.2 |
| Transmission Additives Sold (Cans) | 50.6 | 3.018 | 132 | 4.4 | 497 | 16.5 | 242 | 8.0 | 710 | 23.5 | 1,437 | 47.6 |
| Cooling System Additives Sold (Cans) | 68.6 | 7,111 | 326 | 4.6 | 817 | 11.5 | 764 | 10.7 | 1.477 | 20.8 | 3.727 | 52.4 |
| Cooling System Cleaner Sold (Cans) | 60.2 | 4.228 | 219 | 5.2 | 562 | 13.3 | 362 | 8.6 | 926 | 21.9 | 2.159 | 51.1 |
| Cooling System Sealer Sold (Cans) | 72.6 | 6.550 | 383 | 5.8 | 880 | 13.4 | 880 | 13.4 | 1.476 | 22.5 | 2.931 | 44.7 |
| Windshield Wiper Arms Replaced | 35.2 | 1.010 | 21 | 2.1 | 117 | 11.6 | 84 | 8.3 | 267 | 26.4 | 521 | 51.6 |
| Windshield Wiper Refills Installed | 86.2 | 21.132 | 977 | 4.6 | 3.449 | 16.3 | 2.195 | 10.4 | 5.157 | 24.4 | 9.354 | 44.3 |
| Windshield Wiper Blades Replaced | 76.2 | 10.527 | 609 | 5.8 | 1.548 | 14.7 | 1.073 | 10.2 | 2.649 | 25.2 | 4.648 | 44.2 |
| Windshield Washer Pumps Replaced | 37.4 | 1.073 | 25 | 2.3 | 118 | 11.0 | 111 | 10.3 | 328 | 30.6 | 491 | 45.8 |
| Engines Steam Cleaned (External) | 19.2 | 888 | 6 | .7 | 192 | 21.6 | 96 | 10.8 | 129 | 14.5 | 465 | 52.4 |
| Gasoline Pumps (Number) | 100.0 | 651 | 58 | 8.9 | 93 | 14.3 | 86 | 13.2 | 153 | 23.5 | 261 | 40.1 |
| Service Bays (Number) | 96.5 | 271 | 20 | 7.4 | 42 | 15.5 | 32 | 11.8 | 70 | 25.8 | 107 | 39.5 |

---

(a) Repair volume includes parts and labor.
Source: Hunter Publishing Co., Triennial Service Job Analysis, 1982

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We added design and technological improvements that allowed us to lengthen the insulator nose. Which vastly improved our plug's fouling protection. We also gave it a broader heat range, surer starts, and superior performance in stop-and-go city driving.

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# Average Annual Yields from 1 Bbl. of Crude Oil

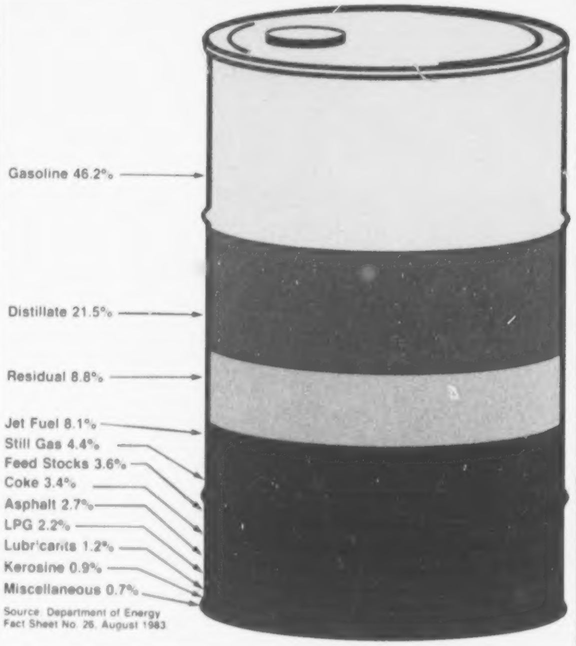
**In looking at these yield patterns, it must be remembered that the product percentages vary in relation to the refiner's maximization technology. Data used in this concept is for 1982, as compiled by the Department of Energy.**

Here are the yields for a standard 42-gal. bbl.:

| Product | Gallons | Product | Gallons |
|---|---|---|---|
| Gasoline | 19.40 | Asphalt | 1.13 |
| Distillate | 9.03 | Coke | 1.43 |
| Residual | 3.70 | LP-Gas | 0.92 |
| Jet Fuel | 2.40 | Kerosine | 0.38 |
| Feedstocks | 1.51 | Lubricants | 0.50 |
| Still Gas | 1.85 | Miscellaneous | 0.58 |

*(These yields total 42.83 gal. mostly as a result of hydrogen processing gains. Similarly, in the chart at the right, the percentages include 3.7% processing gains.)*

Legend has it that the 42-gal. bbl. dates back to the 15th century when King Edward IV of Norway standardized the herring barrel at 42 gal. Subsequently this became a standard for whiskey barrels in the U.S. The oil barrel was modeled after that in 1866 for all U.S. shipments. Canada uses an imperial gallon which is larger than the U.S. variety, while most countries overseas use the metric system for weights and measures.



Source: Department of Energy Fact Sheet No. 26, August 1983

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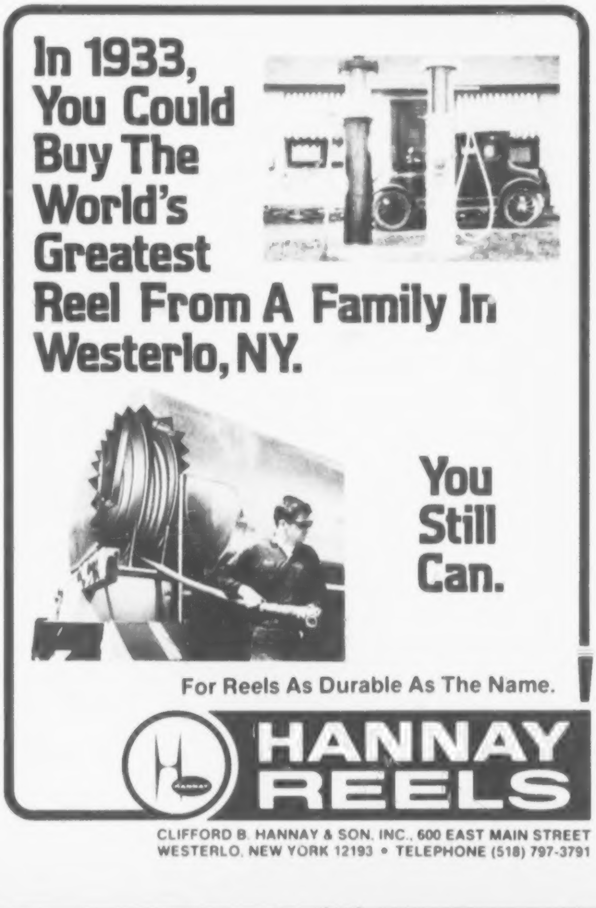
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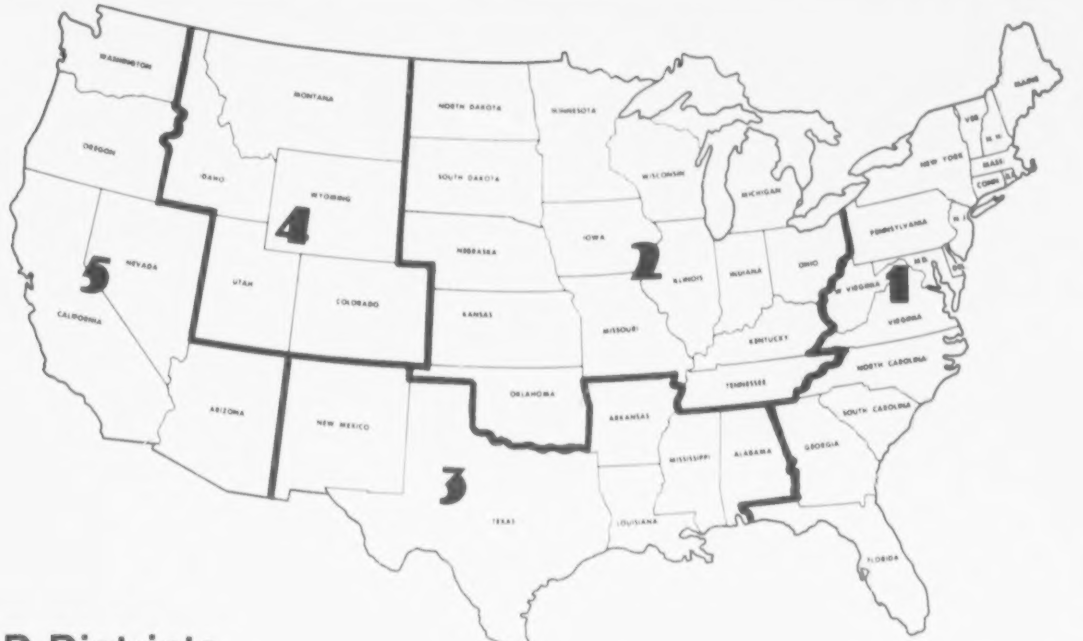
| | 2. Check anode connection in OSHA approved hole. |
| | 3. Check dielectric bushings on piping fitting connections. |
| | 4. Install with proper compaction of backfill. |
| | 5. Install equipment to detect when anodes are operating or sacrificed. |
| | 6. Replace sacrificial anodes when necessary. |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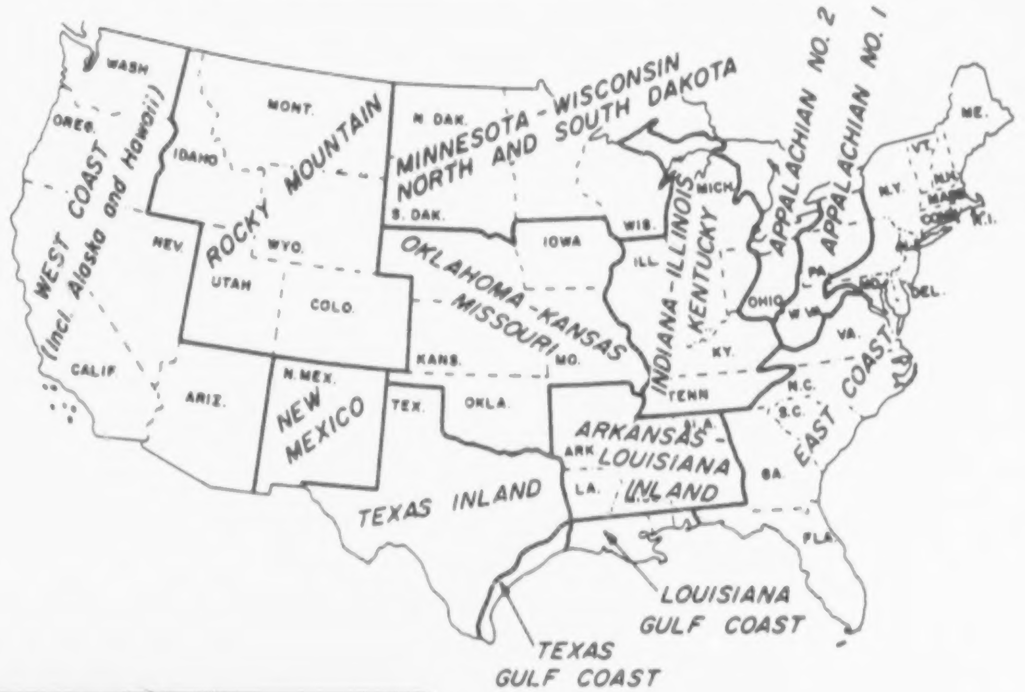
Source: Energy Data Reports, Department of Energy

BUREAU OF MINES REFINING DISTRICTS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# U.S. Refineries and Capacities by States

## (Crude Oil Operable Capacity on Jan. 1, 1983)

**(* after number indicates capacity shut down but capable of being placed in operation within 90 days.)**

| Company | b/d |
|---|---|
| **Alabama: Gulf** | |
| **Louisiana Land & Exploration Co.**, Mobile | 80,000 |
| **Marion Corp.**, Theodore | 25,000 |
| **Mobile Bay Refining Co.**, Chickasaw | 26,600 |
| **Total** | **131,600** |
| **Alabama: Inland** | |
| **Hunt Oil Co.**, Tuscaloosa | 33,500 |
| **Vulcan Refining Co.**, Tuscaloosa (Formerly Coral Petroleum | 9,500* |
| **Warrior Asphalt Co. of Alabama**, Holt | 4,000 |
| | 1,500* |
| **Total** | **37,500** |
| | **11,000*** |
| **Alaska** | |
| **Atlantic Richfield Co.**, North Slope | 20,000 |
| **Chevron U.S.A.**, Kenai | 22,000 |
| **North Pole Refining Co.**, North Pole (Formerly Earth Resources Co.) | 45,000 |
| **Tesoro Petroleum Corp.**, Kenai | 48,500 |
| **Total** | **135,500** |
| **Arizona** | |
| **Arizona Fuel Corp.**, Fredonia | 6,000 |
| **Arkansas** | |
| **Cross Oil & Refining Co.**, Smackover | 6,700 |
| | 2,700* |
| **Crystal Oil Co.**, Stephens (Formerly Berry Petroleum Co.) | 3,200 |
| **MacMillan Ring-Free Oil Co.**, Norphlet | 4,600 |
| | 1,280* |
| **Tosco Corp.**, El Dorado | 38,500 |
| | 8,500* |
| **Total** | **53,000** |
| | **12,480*** |
| **California** | |
| **Anchor Refining Co.**, McKittrick | 9,000* |
| **Atlantic Richfield Co.**, Carson | 178,000 |
| | 27,000* |
| **Beacon Oil Co.**, Hanford (Formerly American Ultramar Ltd.) | 17,300 |
| **Champlin Petroleum Co.**, Wilmington | 60,000 |
| **Chevron U.S.A.**, Bakersfield | 26,000 |
| El Segundo | 390,000 |
| | 15,000* |
| Richmond | 294,000 |
| | 71,000* |
| **Conoco**, Santa Maria | 9,500 |
| **Demenno-Kerdoon**, Compton | 10,000 |
| **ECO Petroleum**, Long Beach | 0 |
| **Edgington Oil Co.**, Long Beach | 41,600 |
| **Exxon Co. U.S.A.**, Benicia | 106,000 |
| **Fletcher Oil & Refining Co.**, Carson | 29,500 |
| **Getty Refining & Marketing Co.**, Bakersfield | 38,000 |
| | 19,600* |
| **Golden Eagle Refining Co.**, Carson | 16,170 |
| **Gulf Oil Corp.**, Santa Fe Springs | 51,500 |
| **Huntway Refining Co. of Northern California**, Van Nuys | 6,750 |
| **Huntway Refining Co.**, Wilmington | 4,750 |
| **Independent Valley Energy Co.**, Bakersfield | 27,000 |
| **Kern Oil & Refinery Co.**, Bakersfield (Formerly Kern County Refinery) | 21,400 |
| **Lunday-Thagard Oil Co.**, South Gate | 3,700 |
| **MacMillan Ring-Free Oil Co.**, Long Beach | 11,000 |
| **Marlex Oil & Refining**, Long Beach | 21,100 |
| **Mobil Oil Corp.**, Torrance | 123,500 |
| **Newhall Refining Co. Inc.**, Newhall | 21,400 |
| **Oxnard Refinery**, Oxnard | 4,000 |
| **Pacific Oasis Corp.**, Paramount (Formerly Conoco Inc.) | 26,000 |
| | 14,500* |
| **Pacific Refining Co.**, Hercules | 85,000 |
| **Powerine Oil Co.**, Santa Fe Springs | 44,120 |
| **San Joaquin Refining Co.**, Bakersfield | 10,000 |
| **Shell Oil Co.**, Martinez | 91,400 |
| Wilmington | 93,000 |
| **Sunland Refining Corp.**, Bakersfield | 12,000 |
| **Texaco Inc.**, Wilmington | 60,000 |
| | 15,000* |
| **Tosco Corp.**, Avon | 126,000 |
| Bakersfield | 38,800 |
| **Union Oil Co. of California**, | |
| Arroyo Grande | 41,000 |
| Rodeo | 70,000 |
| Wilmington | 86,500 |
| | 21,500* |
| **U.S.A. Petrochem Corp.**, Ventura | 24,000 |
| **Witco Chemical Corp.**, Oildale | 0 |
| **Total** | **2,319,990** |
| | **192,600*** |
| **Colorado** | |
| **Asamera Oil (U.S.)**, Commerce City | 26,000 |
| **Conoco**, Commerce City | 32,500 |
| **Gary Western Co.**, Fruita (Formerly Gary Refining Co.) | 13,100 |
| **Total** | **71,600** |
| **Delaware** | |
| **Getty Refining & Marketing Co.**, Delaware City | 140,000 |
| **Georgia** | |
| **Amoco Oil Co.**, Savannah | 24,000 |
| **Young Refining Corp.**, Douglasville | 2,700 |
| **Total** | **26,700** |
| **Hawaii** | |
| **Chevron U.S.A.**, Honolulu | 48,000 |
| **Illinois** | |
| **Clark Oil & Refining Corp.**, | |
| Blue Island | 57,000 |
| Hartford | 47,500 |
| **Marathon Oil Co.**, Robinson | 120,000 |
| | 75,000* |
| **Mobil Oil Corp.**, Joliet | 180,000 |
| **Moreco Energy**, McCook | 1,000 |
| **Shell Oil Co.**, Wood River | 283,000 |
| **Texaco**, Lawrenceville | 54,000 |
| | 30,000* |
| **Union Oil Co. of California** Lemont | 151,000 |
| **Total** | **893,500** |
| | **105,000*** |
| **Indiana** | |
| **Amoco Oil Co.**, Whiting | 376,000 |
| **Gladieux Refinery**, Fort Wayne | 12,900 |
| **Indiana Farm Bureau Cooperative Association**, Mount Vernon | 21,200 |
| **Kentucky Oil & Refining Co.**, Troy | 1,000* |
| **Laketon Refining Corp.**, Laketon (Formerly Laketon Asphalt Refining Co.) | 7,900 |
| **Rock Island Refining Corp.**, Indianapolis | 43,200 |
| **Total** | **461,200** |
| | **1,000*** |
| **Kansas** | |
| **Derby Refining Co.**, North Wichita | 27,982 |
| **Farmland Industries**, Coffeyville (Formerly CRA Inc.) | 56,500 |
| Phillipsburg | 26,400* |
| **Getty Refining & Marketing Co.**, El Dorado | 80,577 |
| **Mobil Oil Corp.**, Augusta | 31,200 |
| | 18,800* |
| **National Cooperative Refinery Assn.**, McPherson | 54,000 |
| **Pester Refining Co.**, El Dorado | 33,250 |
| **Total Petroleum**, Arkansas City | 42,500 |
| **Total** | **326,009** |
| | **45,200*** |
| **Kentucky** | |
| **Ashland Oil**, Catlettsburg | 189,150 |
| | 24,250* |
| Louisville | 25,200 |
| **B-T Energy Corp.**, Louisville | 3,000 |
| **Kentucky Oil & Refining Co.**, Betsy Lane | 600* |
| **Somerset Refinery Inc.**, Somerset | 5,500 |
| **Total** | **222,850** |
| | **24,850*** |
| **Louisiana: Gulf** | |
| **Canal Refining Co.**, Church Point | 8,000 |
| **Celeron Oil & Gas Co.**, Mermentau (Formerly Slapco) | 11,000 |
| **Cities Service Co.**, Lake Charles | 297,000 |
| | 23,000* |
| **Clark Oil & Refining Corp.**, Mt. Airy (Formerly Mt. Airy Refining Co.) | 0 |
| **Conoco**, Egan | 1,500 |
| | 5,000* |
| West Lake | 156,500 |
| **CPI Oil & Refining**, Lake Charles | 14,000 |
| **Exxon Co. U.S.A.**, Baton Rouge | 419,000 |
| | 36,000* |
| **GHR Energy Corp.**, Good Hope | 300,000* |
| **Gulf Oil Corp.**, Belle Chasse | 199,100 |

| Company | b/d |
|---|---|
| **Hill Petroleum Co.**, Krotz Springs | 46,000 |
| | 11,400* |
| **International Processors**, St. Rose | 28,356* |
| **Mallard Resources**, Gueydan | 7,400 |
| **Marathon Oil Co.**, Garyville | 255,000 |
| **McTan Refining Corp.**, St. James | 19,300* |
| **Murphy Oil Corp.**, Meraux | 90,200 |
| **Placid Refining Co.**, Port Allen | 45,000 |
| **Shell Oil Co.**, Norco | 218,200 |
| **Tenneco Oil Co.**, Chalmette | 114,000 |
| **Texaco**, Convent | 140,000 |
| **Texas NAPCO**, St. James (Formerly LaJet Inc.) | 20,000 |
| **Total** | **2,041,900** |
| | **423,056*** |

### Louisiana: Inland

| Company | b/d |
|---|---|
| **Atlas Processing Co.**, Shreveport | 45,000 |
| | 31,500* |
| **Calumet Refining Co.**, Princeton | 3,200 |
| | 1,200* |
| **Claiborne Gasoline Co.**, Lisbon | 6,500 |
| **Kerr-McGee Corp.**, Cotton Valley (Formerly Cotton Valley Solvents Co.) | 7,800 |
| Dubach | 7,800 |
| **Port Petroleum Inc.**, Stonewall | 3,200 |
| **Total** | **73,500** |
| | **32,700*** |

### Maryland

| Company | b/d |
|---|---|
| **Chevron U.S.A.**, Baltimore | 14,200 |

### Michigan

| Company | b/d |
|---|---|
| **Crystal Refining Co.**, Carson City | 3,000 |
| **Lakeside Refining Co.**, Kalamazoo | 2,700 |
| **Marathon Oil Co.**, Detroit | 68,500 |
| **Total Petroleum**, Alma | 40,000 |
| **Total** | **114,200** |

### Minnesota

| Company | b/d |
|---|---|
| **Ashland Oil**, St. Paul Park | 67,143 |
| **Koch Refining Co.**, Rosemount | 133,000 |
| **Total** | **200,143** |

### Mississippi: Gulf

| Company | b/d |
|---|---|
| **Chevron U.S.A.**, Pascagoula | 280,000 |

### Mississippi: Inland

| Company | b/d |
|---|---|
| **Amerada Hess Corp.**, Purvis | 29,000 |
| **Ergon Refining**, Vicksburg | 20,600* |
| **Southland Oil Co.**, Lumberton | 3,000 |
| | 2,800* |
| Sandersville | 11,000 |
| **Vicksburg Refining**, Vicksburg | 7,900* |
| **Total** | **43,000** |
| | **31,300*** |

### Montana

| Company | b/d |
|---|---|
| **Conoco**, Billings | 48,500 |
| **Exxon Co. U.S.A.**, Billings | 45,000 |
| **Farmers Union Central Exchange Inc. (CENEX)**, Laurel | 33,650 |
| | 7,800* |
| **Flying J**, Cutbank | 5,600 |
| **Kenco Refining**, Wolf Point | 4,700 |
| **Simmons Refining Corp.**, Great Falls | 6,300 |
| **Total** | **143,750** |
| | **7,800*** |

### Nevada

| Company | b/d |
|---|---|
| **Nevada Refining Co.**, Tonopah | 4,500 |

### New Jersey

| Company | b/d |
|---|---|
| **Amerada Hess Corp.**, Port Reading | 68,000* |
| **Chevron U.S.A.**, Perth Amboy | 80,000 |
| | 88,000* |
| **Exxon Co. U.S.A.**, Linden | 100,000 |
| **Mobil Oil Corp.**, Paulsboro | 99,700 |
| **Seaview Petroleum Co.**, Paulsboro | 44,400 |
| **Texaco Inc.**, Westville | 90,000 |
| **Total** | **414,100** |
| | **156,000*** |

### New Mexico

| Company | b/d |
|---|---|
| **Giant Industries Inc.**, Gallop (Formerly Shell Oil Co.) | 18,000 |
| **Navajo Refining Co.**, Artesia | 28,500 |
| **Plateau**, Bloomfield | 16,800 |
| **Southern Union Refining Co.**, Lovington | 36,100 |
| **Thriftway Oil Co.**, Bloomfield | 4,750 |
| **Total** | **104,150** |

### New York: East

| Company | b/d |
|---|---|
| **Cibro Petroleum Products**, Albany | 41,850 |

### New York: West

| Company | b/d |
|---|---|
| **Ashland Oil**, Buffalo | 64,000* |

### North Carolina

| Company | b/d |
|---|---|
| **GNC Energy Corp.**, Greensboro | 3,000 |

### North Dakota

| Company | b/d |
|---|---|
| **Amoco Oil Co.**, Mandan | 56,000 |

### Ohio: East

| Company | b/d |
|---|---|
| **Ashland Oil**, Canton | 66,000 |

### Ohio: West

| Company | b/d |
|---|---|
| **Ashland Oil**, Findlay | 20,400* |
| **Gulf Oil Corp.**, Cleves | 43,700 |
| **Standard Oil Co. of Ohio**, Lima | 168,000 |
| Toledo | 80,000 |
| | 40,000* |
| **Sun Co.**, Toledo | 118,000 |
| **Total** | 409,700 |
| | 60,400* |

### Oklahoma

| Company | b/d |
|---|---|
| **Allied Materials Corp.**, Stroud | 7,500 |
| **Champlin Petroleum Co.**, Enid | 53,800 |
| **Conoco**, Ponca City | 118,500 |
| | 15,500* |
| **Hudson Refining Co.**, Cushing | 19,000* |
| **Kerr-McGee Corp.**, Wynnewood | 43,000 |
| **Oklahoma Refining Co.**, Cyril | 9,200 |
| Thomas | 9,800 |
| **Sun Co.**, Tulsa | 85,000 |
| **Tonkawa Refining Co.**, Arnett | 12,000 |
| **Tosca Corp.**, Duncan | 47,000 |
| **Total Petroleum**, Ardmore | 49,500 |
| | 12,500* |
| **Total** | **435,300** |
| | **47,000*** |

### Oregon

| Company | b/d |
|---|---|
| **Chevron U.S.A.**, Willbridge | 15,000 |

### Pennsylvania: East

| Company | b/d |
|---|---|
| **Atlantic Richfield Co.**, Philadelphia | 125,000 |
| **BP Oil Corp.**, Marcus Hook | 168,000 |
| **Gulf Oil Corp.**, Philadelphia | 174,100 |
| **Sun Co.**, Marcus Hook | 155,000 |
| **Total** | **622,100** |

### Pennsylvania: West

| Company | b/d |
|---|---|
| **American Refining Group**, Indianola | 200* |
| **Ashland Oil**, Freedom | 6,800 |
| **Pennzoil Co.**, Rouseville | 15,700 |
| **Quaker State Oil Refining Corp.**, Emlenton | 0 |
| Smethport | 6,700 |
| **United Refining Co.**, Warren (Formerly Coral Petroleum Inc.) | 60,000 |
| **Witco Chemical Corp.**, Bradford | 6,841 |
| **Total** | **96,041** |
| | **200*** |

### Tennessee

| Company | b/d |
|---|---|
| **Delta Refining Co.**, Memphis | 49,500 |

### Texas: Gulf

| Company | b/d |
|---|---|
| **American Petrofina Co. of Texas**, Port Arthur | 90,000 |
| **Amoco Oil Co.**, Texas City | 415,000 |
| **Atlantic Richfield Co.**, Houston | 232,000 |
| **Champlin Petroleum Co.**, Corpus Christi | 155,000 |
| | 15,000* |
| **Charter International Oil Co.**, Houston | 65,000 |
| **Coastal States Petroleum Co.**, Corpus Christi | 110,400 |
| | 18,400* |
| **Conoco**, Alvin Texas City | 33,274 |
| **Crown Central Petroleum Corp.**, Pasadena | 100,000 |
| **Eddy Refining Co.**, Houston | 3,250 |
| **Erickson Refining Corp.**, Port Neches (Formerly Independent Refining Corp.) | 30,000* |
| **Exxon Co. U.S.A.**, Baytown | 427,000 |
| | 67,000* |
| **Gulf Oil Corp.**, Port Arthur | 268,400 |
| | 144,300* |
| **Independent Refining Corp.**, Winnie | 50,000* |
| **Koch Refining Co.**, Corpus Christi (Merged with Gulf States Oil & Refining Co.) | 105,000 |
| **Marathon Oil Co.**, Texas City | 49,000 |
| | 20,500* |
| **Mobil Oil Corp.**, Beaumont | 277,400 |
| | 57,600* |
| **Petraco-Valley Oil & Refining Co.**, Brownsville | 12,300* |
| **Petromax**, Houston | 2,000* |
| **Phillips Petroleum Co.**, Sweeney | 175,000 |
| **Quintana Petrochemical Co.**, Corpus Christi | 33,300 |
| **Saber Refining Co.**, Corpus Christi | 19,320* |
| **Shell Oil Co.**, Deer Park | 285,000 |
| **South Hampton Refining Co.**, Silsbee | 18,100 |
| **Southwestern Refining Co.**, Corpus Christi | 63,000 |
| | 41,000* |
| **Texaco**, Port Arthur | 242,000 |
| | 160,000* |
| Port Neches | 31,000 |
| **Texas City Refining**, Texas City | 119,600 |
| **Uni Refining**, Ingleside, (Formerly Texas Independent Corp.) | 30,000* |
| **Union Oil Co. of California**, Beaumont (Nederland) | 120,000 |
| **Total** | **3,417,724** |
| | **667,420*** |

### Texas: Inland

| Company | b/d |
|---|---|
| **Amber Refining**, Fort Worth (Formerly E-Z Serv Refining) | 20,000 |
| **American Petrofina Co. of Texas**, Big Spring | 60,000 |
| **Chevron U.S.A.**, El Paso | 76,000 |
| **Diamond Shamrock Corp.**, Sunray | 71,100 |
| **Dorchester Refining Co.**, Mount Pleasant | 26,500 |
| White Deer | 0 |
| **Flint Chemical Co.**, San Antonio | 1,500 |
| **Howell Hydrocarbons**, San Antonio | 9,900 |

| Company | b/d |
|---|---|
| **La Gloria Oil & Gas Co.**, Tyler | 46,000 |
| **Liquid Energy Corp.**, Bridgeport | 10,000 |
| **Petrolite Corp.**, Kilgore | 1,000 |
| **Phillips Petroleum Co.**, Borger | 95,000 |
| **Pioneer Refining Ltd.**, Nixon | 15,000 |
| **Pride Refining Inc.**, Abilene | 42,750 |
| **Shell Oil Co.**, Odessa | 30,600 |
| **Shore**, Kilgore | 550 |
| **Sigmor Refining Co.**, Three Rivers | 40,000 |
| **Tesoro Petroleum Corp.**, Carrizo Springs | 26,100 |
| **Texaco**, Amarillo | 20,000 |
| El Paso | 17,000 |
| **Thriftway Oil Co.**, Graham | 1,184* |
| **Total** | **609,000** |
| | **1,184*** |
| **Utah** | |
| **Amoco Oil Co.**, Salt Lake City | 39,000 |
| **Caribou-Four Corners Oil Co.**, Woods Cross | 8,000* |
| **Chevron U.S.A.**, Salt Lake City | 45,000 |
| **Crysen Corp.**, Woods Cross (Formerly Western Refining Co.) | 12,500 |
| **Husky Oil Co.**, North Salt Lake | 25,000 |
| **Morrison Petroleum Co.**, Woods Cross | 6,000* |
| **Phillips Petroleum Co.**, Woods Cross | 25,000 |
| **Plateau**, Roosevelt | 7,500 |
| **Total** | **154,000** |
| | **14,000*** |
| **Virginia** | |
| **Amoco Oil Co.**, Yorktown | 53,000 |
| **Washington** | |
| **Atlantic Richfield Co.**, Ferndale | 126,000 |
| **Chevron U.S.A.**, Richmond Beach | 5,500 |
| **Mobil Oil Corp.**, Ferndale | 71,500 |
| **Shell Oil Co.**, Anacortes | 91,000 |
| **Sound Refining**, Tacoma (Formerly Crysen Corp.) | 11,070 |
| **Texaco**, Anacortes | 78,000 |
| **U.S. Oil & Refining Co.**, Tacoma | 21,400 |
| **Total** | **404,470** |
| **West Virginia** | |
| **Quaker State Oil Refining Corp.**, Newell | 9,515 |
| St. Mary's | 4,500 |
| **Total** | **14,015** |
| **Wisconsin** | |
| **Murphy Oil Corp.**, Superior | 39,000 |
| **Wyoming** | |
| **Amoco Oil Co.**, Casper | 48,000 |
| **Husky Oil Co.**, Cheyenne | 28,800 |
| **Little America Refining Co.**, Casper | 24,500 |
| **Mountaineer Refining Co.**, La Barge | 200 |
| **Silver Eagle Oil Inc.**, La Barge | 1,500* |
| **Sinclair Oil Corp.**, Sinclair (Formerly Little America Refining Co.) | 54,000 |
| **Wyoming Refining Co.**, Newcastle | 12,555 |
| **Total** | **168,055** |
| | **1,500*** |
| **Guam** | |
| **Guam Oil & Refining Co.**, Agana | 43,900 |
| **Puerto Rico** | |
| **Commonwealth Oil Refining Co.**, Penuelas | 123,495* |
| **Gulf Oil Corp.**, Bayamon | 24,500 |
| | 11,500* |
| **Phillips Puerto Rico Core**, Guayama | 0 |
| **Sun Co.**, Yabucoa | 85,000 |
| **Total** | **109,500** |
| | **134,995*** |
| **Hawaiian Foreign Trade Zone** | |
| **Hawaiian Independent Refinery**, Ewa Beach | 60,000 |
| **Virgin Islands** | |
| **Amerada Hess Corp.**, St. Croix | 515,000 |

Source: Petroleum Supply Annual, 1983, Energy Information Administration

# Lubricating Oil and Wax Capacities of U.S. Refineries

**(All capacities in 000 b/d in 1983)**

| | | | Finished Lube Capacity | | | | | Wax Capacity | |
|---|---|---|---|---|---|---|---|---|---|
| Company | Location | Crude Capacity | A | B | C | D | Total | E | F |
| Allied Materials Corp. | Stroud, Okla. | 8.0 | 0.8 | | | | 0.8 | | 0.2 |
| Amoco Oil Co. | Casper, Wyo. | 48.0 | 1.5 | | 0.1 | | 1.6 | 0.2 | 0.2 |
| Amoco Oil Co. | Whiting, Ind. | 376.0 | 6.2 | | | | 6.2 | 0.6 | |
| Ashland Oil, Inc. | Catlettsburg, Ky. | 220.0 | 7.9 | | | | 7.9 | | 2.0 |
| Ashland Oil, Inc. | Freedom, Pa. | 6.5 | | | | | | | |
| Atlantic Richfield Co. | houston, Tex. | 232.0 | 4.4 | | | 2.0 | 6.4 | 0.4 | 0.4 |
| Calumet Refining Co. | Burnham, Ill. | 0.0 | | | | 0.6 | 0.6 | | |
| Calumet Refining Co. | Princeton, La. | 4.4 | | | | 3.2 | 3.2 | | |
| Chevron U.S.A. Inc. | Richmond, Calif. | 365.0 | 3.0 | 2.3 | | | 5.3 | 1.2 | 1.0 |
| Cit-Con Oil Corp. | Lake Charles, La. | | 10.0 | | | | 10.0 | 1.0 | 0.8 |
| Conoco Inc. | Ponca City, Okla. | 134.0 | 2.0 | | | | 2.0 | 0.2 | |
| Cross Oil & Refining, Inc. | Smackover, Ark. | 9.8 | | | | 4.0 | 4.0 | | |
| Diamond Shamrock Corp. | Three Rivers, Tex. | 2.0 | | | | 2.0 | 2.0 | | |
| Exxon Co., U.S.A. | Baton Rouge, La. | 455.0 | 13.8 | | 2.7 | | 16.5 | 1.5 | |
| Exxon Co., U.S.A. | Baytown, Tex. | 494.0 | 16.1 | 9.0 | | 6.7 | 31.8 | | 1.7 |
| Farmland Industries, Inc. | Coffeyville, Kans. | 56.5 | 2.5 | | | | 2.5 | 0.2 | |
| Gulf Refining and Marketing Co. | Port Arthur, Tex. | 412.7 | 6.6 | 0.5 | 1.4 | 1.6 | 10.1 | | 0.4 |
| Lubrication Co. of America | Saugus, Calif. | | | 0.5 | | | 0.5 | | |
| Macmillan Petroleum, Inc. | Norphlet, Ark. | 6.0 | | | | 2.2 | 2.2 | | |
| Mobil Oil Corp. | Beaumont, Tex. | 325.0 | 9.2 | | | | 9.2 | 1.3 | 0.3 |
| Mobil Oil Corp. | Paulsboro, N.J. | 99.7 | 7.1 | | | | 7.1 | | 0.3 |
| Pennzoil Co. | Falling Rock, W. Va. | 0.0 | | | 0.0 | | 0.0 | 0.0 | 0.0 |
| Pennzoil Co. | Rouseville, Pa. | 15.7 | | | 4.4 | | 4.4 | 0.6 | 0.4 |
| Pennzoil Co., Atlas Processing Co. | Shreveport, La. | 76.5 | 3.6 | | 1.4 | 2.7 | 7.7 | 1.0 | |
| Petrolite Corp. | Barnsdall, Okla. | | | | | | | 0.4 | |
| Petrolite Corp., Bareco Div. | Kilgore, Tex. | 1.0 | | | | | | | 0.3 |
| Phillips Petroleum Co. | Kansas City, Kans. | 0.0 | 0.0 | | | | 0.0 | | 0.0 |
| Quaker State Oil Ref. Corp. | Emlenton, Pa. | | | | | | | 0.7 | |
| Quaker State Oil Ref. Corp. | Farmers Valley, Pa. | 6.5 | 2.5 | | | | 2.5 | 0.4 | 0.5 |
| Quaker State Ref. Corp. | Newell, W. Va. | 11.7 | | | 3.6 | | 3.6 | | 0.8 |
| Quaker State Oil Ref. Corp. | St. Mary's, W. Va. | 4.9 | 1.6 | | | | 1.6 | | 0.3 |
| Shell Oil Co. | Deer Park, Tex. | 285.0 | 4.5 | | | 4.4 | 8.9 | 1.2 | |
| Shell Oil Co. | Martinez, Calif. | 91.4 | | 3.5 | | 0.3 | 3.8 | | |
| Shell Oil Co. | Wood River, Ill. | 283.0 | 5.0 | | | | 5.0 | | 0.7 |
| Standard Oil Co. (Ohio) | Lima, Ohio | 168.0 | 2.0 | | 0.4 | | 2.4 | | |
| Sun Co., Inc. | Marcus Hook, Pa. | 155.0 | 5.5 | | | 10.5 | 16.0 | 1.0 | |
| Sun Co., Inc. | Tulsa, Okla. | 85.0 | 7.8 | | | | 7.8 | 0.8 | |
| Sun Co., Inc. | Yabucoa, Puerto Rico | 85.0 | 6.5 | | | | 6.5 | | 1.7 |
| Texaco U.S.A. | Port Arthur, Tex. | 402.0 | 12.0 | 0.6 | 3.4 | 4.0 | 20.0 | 0.1 | 1.8 |
| Union Oil Co. of Calif. | Nederland, Tex. | 120.0 | 2.9 | | | | 2.9 | 0.1 | 0.2 |
| Union Oil Co. of Calif. | Rodeo, Calif. | 70.0 | 4.0 | | | | 4.0 | 0.6 | 1.5 |
| Witco Chemical Corp. | Bradford, Pa. | 7.6 | 1.6 | | 0.9 | | 2.5 | 0.2 | |
| Witco Chemical Corp. | Oildale, Calif. | 11.0 | | 2.4 | | 1.9 | 4.3 | | |
| | TOTAL: | 5133.9 | 150.6 | 18.8 | 18.3 | 46.1 | 233.8 | 13.7 | 15.5 |

## Canadian Refineries

| Company | Location | Crude Capacity | A | B | C | D | Total | E | F |
|---|---|---|---|---|---|---|---|---|---|
| Gulf Canada Ltd. | Clarkson, Ontario | 76.6 | 4.6 | | | | 4.6 | | 1.0 |
| Imperial Oil Enterprises Ltd. | Sarnia, Ontario | 126.0 | 5.1 | 0.7 | | | 5.8 | 0.6 | 1.6 |
| Imperial Oil Enterprises Ltd. | Strathcona, Alberta | 150.0 | 2.9 | | - | | 2.9 | | 1.1 |
| International Waxes, Ltd. | Agincourt, Ontario | | | | | | | 0.8 | |
| Shell Canada Ltd. | Montreal East, Quebec | 31.0 | 3.4 | | | | 3.4 | | 1.0 |
| | TOTAL: | 383.6 | 16.0 | 0.7 | 0.0 | 0.0 | 16.7 | 1.4 | 4.7 |

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Definitions: A—Solvent extracted paraffinic stocks; B—Solvent extracted naphthenic stocks; C—Unextracted paraffinic stocks; D—Unextracted naphthenic stocks; E—Fully refined, crude scale and micro waxes; F—Semi-finished, slack waxes and petrolatums.

Source: National Petroleum Refiners Assn., Lubricating Oil and Wax Capacities, 1983

# U.S. Refineries and Capacities by Companies

## (In descending order as of Jan. 1, 1983)

**Important note: This listing includes capacity that is operation and capacity that is idle or shut down. In the latter case, this capacity can be restored to normal within 90 days. The Energy Information Administration says there were 258 operable refineries on Jan. 1, 1983, compared with a total of 301 the preceding year. The crude distillation capacity was 16.9-million b/d, compared with the year ago figure of 17.9-million b/d. Of the operable capacity, 1.9-million b/d was idle. EIA's forecast for Jan. 1, 1984 indicated at least seven more refineries would be shut down in 1983 with an aggregate loss of 400,000 b/d. For earlier data, see 1983 NPN Factbook.**

**Companies with a capacity of more than 100,000 b/d. Number of companies: 30; Total capacity: 14,185,476.**

| Company | b/d |
|---|---|
| **Standard Oil Co. of California** | |
| **Chevron U.S.A.** | |
| El Segundo, CA | 405,000 |
| Richmond, CA | 365,000 |
| Pascagoula, MS | 280,000 |
| Perth Amboy, NJ | 168,000 |
| El Paso, TX | 76,000 |
| Honolulu, HI | 48,000 |
| Salt Lake City, UT | 45,000 |
| Bakersfield, CA | 26,000 |
| Kenai, AK | 22,000 |
| Willbridge, OR | 15,000 |
| Baltimore, MD | 14,200 |
| Richmond Beach, WA | 5,500 |
| Total | 1,469,700 |
| **Exxon Corp.** | |
| **Exxon Co. U.S.A.** | |
| Baytown, TX | 494,000 |
| Baton Rouge, LA | 455,000 |
| Benicia, CA | 106,000 |
| Linden, NJ | 100,000 |
| Billings, MT | 45,000 |
| Total | 1,200,000 |
| **Shell Oil Co.** | |
| Deer Park, TX | 285,000 |
| Wood River, IL | 283,000 |
| Norco, LA | 218,200 |
| Wilmington, CA | 93,000 |
| Martinez, CA | 91,400 |
| Anacortes, WA | 91,000 |
| Odessa, TX | 30,600 |
| Total | 1,092,200 |
| **Standard Oil Co. of Indiana** | |
| **Amoco Oil Co.** | |
| Texas City, TX | 415,000 |
| Whiting, IN | 376,000 |
| Mandan, ND | 56,000 |
| Yorktown, VA | 53,000 |
| Casper, WY | 48,000 |
| Salt Lake City, UT | 39,000 |
| Savannah, GA | 24,000 |
| Total | 1,011,000 |
| **Texaco Inc.** | |
| Port Arthur, TX | 402,000 |
| Convent, LA | 140,000 |
| Westville, NJ | 90,000 |
| Lawrenceville, IL | 84,000 |
| Anacortes, WA | 78,000 |
| Wilmington, CA | 75,000 |
| Port Neches, TX | 31,000 |
| Amarillo, TX | 20,000 |
| El Paso, TX | 17,000 |
| Total | 937,000 |
| **Gulf Oil Corp.** | |
| Port Arthur, TX | 412,700 |
| Belle Chasse, LA | 199,100 |
| Philadelphia, PA | 174,100 |
| Santa Fe Springs, CA | 51,500 |
| Cleves, OH | 43,700 |
| Total | 881,100 |
| **Mobil Oil Corp.** | |
| Beaumont, TX | 335,000 |
| Joliet, IL | 180,000 |
| Torrance, CA | 123,500 |
| Paulsboro, NJ | 99,700 |
| Ferndale, WA | 71,500 |
| Augusta, KS | 50,000 |
| Total | 859,700 |
| **Atlantic Richfield Co.** | |
| Houston, TX | 232,000 |
| Carson, CA | 205,000 |
| Ferndale, WA | 126,000 |
| Philadelphia, PA | 125,000 |
| North Slope, AK | 20,000 |
| Total | 708,000 |
| **Marathon Oil Co.** | |
| Garyville, LA | 255,000 |
| Robinson, IL | 195,000 |
| Texas City, TX | 69,500 |
| Detroit, MI | 68,500 |
| Total | 588,000 |
| **Union Oil Co. of California** | |
| Lemont, IL | 151,000 |
| Beaumont (Nederland), TX | 120,000 |
| Wilmington, CA | 108,000 |
| Rodeo, CA | 70,000 |
| Arroyo Grande, CA | 41,000 |
| Total | 490,000 |
| **Ashland Oil** | |
| Catlettsburg, KY | 213,400 |
| St. Paul Park, MN | 67,143 |
| Canton, OH | 66,000 |
| Buffalo, NY | 64,000 |
| Louisville, KY | 25,200 |
| Findlay, OH | 20,400 |
| Freedom, PA | 6,800 |
| Total | 462,943 |
| **Standard Oil Co. of Ohio** | |
| Lima, OH | 168,000 |
| Toledo, OH | 120,000 |
| **BP Oil Corp.** | |
| Marcus Hook, PA | 168,000 |
| Total | 456,000 |
| **DuPont Holdings** | |
| **Conoco, Inc.** | |
| West Lake, LA | 156,500 |
| Ponca City, OK | 134,000 |
| Billings, MT | 48,500 |
| Alvin Texas City, TX | 33,274 |
| Commerce City, CO | 32,500 |
| Santa Maria, CA | 9,500 |
| Egan, LA | 6,500 |
| Total | 420,774 |
| **Sun Co.** | |
| Marcus Hook, PA | 155,000 |
| Toledo, OH | 118,000 |
| Tulsa, OK | 85,000 |
| Total | 358,000 |
| **Occidental Petroleum** | |
| **Cities Service Co.** | |
| Lake Charles, LA | 320,000 |
| **GHR Energy Corp.** | |
| Good Hope, LA | 300,000 |
| **Phillips Petroleum Co.** | |
| Sweeny, TX | 175,000 |
| Borger, TX | 95,000 |
| Woods Cross, UT | 25,000 |
| Total | 295,000 |
| **Union Pacific Corp.** | |
| **Champlin Petroleum Co.** | |
| Corpus Christi, TX | 170,000 |
| Wilmington, CA | 60,000 |
| Enid, OK | 53,800 |
| Total | 283,800 |
| **Getty Oil Co.** | |
| **Getty Refining & Marketing Co.** | |
| Delaware City, DE | 140,000 |
| El Dorado, KS | 80,577 |
| Bakersfield, CA | 57,600 |
| Total | 278,177 |
| **Tosco Corp.** | |
| Avon, California | 126,000 |
| El Dorado, AR | 47,000 |
| Duncan, OK | 47,000 |
| Bakersfield, CA | 38,800 |
| Total | 258,800 |
| **Coastal States Marketing Corp.**[1] | |
| **Coastal States Petroleum Co.** | |
| Corpus Christi, TX | 128,800 |
| **Pacific Refining Co. Inc.** | |
| Hercules, CA | 85,000 |
| **Derby Refining Co.** | |
| North Wichita, KS | 27,982 |
| Total | 241,782 |
| **Koch Industries** | |
| **Koch Refining Co.** | |
| Rosemount, MN | 133,000 |
| Corpus Christi, TX[2] | 105,000 |
| Total | 238,000 |
| **Kerr-McGee Corp.** | |
| Wynnewood, OK | 43,000 |
| Dubach, LA | 7,800 |
| Cotton Valley, LA[3] | 7,800 |
| **Southwestern Refining Co. Inc.** | |
| Corpus Christi, TX | 104,000 |
| Total | 162,600 |
| **American Petrofina Co. of Texas** | |
| Port Arthur, TX | 90,000 |
| Big Spring, TX | 60,000 |
| Total | 150,000 |
| **Total Petroleum Inc.** | |
| Ardmore, OK | 62,000 |
| Arkansas City, KS | 42,500 |
| Alma, MI | 40,000 |
| Total | 144,500 |

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| Company | b/d |
|---|---|
| **Murphy Oil Corp.** | |
| Meraux, LA | 90,200 |
| Superior, WI | 39,000 |
| Total | 129,200 |
| **Agway Petroleum Corp.** | |
| **Texas City Refining Inc.** | |
| Texas City, TX | 119,600 |
| **Tenneco Oil Co.** | |
| Chalmette, LA | 114,000 |
| **Diamond Shamrock Corp.** | |
| Sunray, TX | 71,100 |
| **Sigmor Refining Co.** | |
| Three Rivers, TX | 40,000 |
| Total | 111,100 |
| **Apex Oil Co.** | |
| **Clark Oil & Refining Corp.** | |
| Blue Island, IL | 57,000 |
| Hartford, IL | 47,500 |
| Total | 104,500 |

### Companies with a capacity of 30,001 to 100,000 b/d. Number of companies: 28; Total capacity: 1,646,420.

| Company | b/d |
|---|---|
| **Crown Central Petroleum Corp.** | |
| Pasadena, TX | 100,000 |
| **Amerada Hess Corp.** | |
| Port Reading, NJ[4] | 68,000 |
| Purvis, MS | 29,000 |
| Total | 97,000 |
| **Mid-America Pipe Line System**[5] | |
| **Delta Refining Co.** | |
| Memphis, TN | 49,500 |
| **North Pole Refining Co.** | |
| North Pole, AK | 45,000 |
| Total | 94,500 |
| **Pennzoil Co. Inc.** | |
| Rouseville, PA | 15,700 |
| **Atlas Processing Co.** | |
| Shreveport, LA | 76,500 |
| Total | 92,200 |
| **Farmland Industries Inc.**[6] | |
| Coffeyville, KS | 56,500 |
| Phillipsburg, KS | 26,400 |
| Total | 82,900 |
| **Independent Refining Corp.** | |
| Winnie, TX | 50,000 |
| **Erickson Refining Corp.**[7] | |
| Port Neches, TX | 30,000 |
| Total | 80,000 |
| **Louisiana Land & Exploration Co.** | |
| Mobile, AL | 80,000 |
| **Little America Refining Co.** | |
| Casper, WY | 24,500 |
| **Sinclair Oil Corp.**[8] | |
| Sinclair, WY | 54,000 |
| Total | 78,500 |
| **Tesoro Petroleum Corp.** | |
| Kenai, AK[9] | 48,500 |
| Carrizo Springs, TX | 26,100 |
| Total | 74,600 |
| **Coral Petroleum Inc.** | |
| **United Refining Co.**[10] | |
| Warren, PA | 60,000 |
| **Vulcan Refining Co.**[11] | |
| Tuscaloosa, AL | 9,500 |
| Total | 69,500 |
| **Charter International Oil Co.** | |
| Houston, TX | 65,000 |
| **Goldking Refining Ltd.** | |
| **Hill Petroleum Co.** | |
| Krotz Springs, LA | 57,400 |
| **National Cooperative Refinery Association** | |
| McPherson, KS | 54,000 |
| **Husky Oil Co.** | |
| Cheyenne, WY | 28,800 |
| North Salt Lake, UT | 25,000 |
| Total | 53,800 |
| **Texas Eastern Transmission Corp.** | |
| **La Gloria Oil & Gas Co.** | |
| Tyler, TX | 46,000 |
| **Placid Oil Co.** | |
| **Placid Refining Co.** | |
| Port Allen, LA | 45,000 |
| **Seaview Petroleum Co.** | |
| Paulsboro, NJ | 44,400 |
| **Powerine Oil Co.** | |
| Santa Fe Springs, CA | 44,120 |
| **Rock Island Refining Corp.** | |
| Indianapolis, IN | 43,200 |
| **Pride Refining Inc.** | |
| Abilene, TX | 42,750 |
| **Cirillo Brothers Oil Co.** | |
| **Cibro Petroleum Products Inc.** | |
| Albany, NY | 41,850 |
| **Penn Central Corp.** | |
| **Edgington Oil Co. Inc.** | |
| Long Beach, CA | 41,600 |
| **Farmers Union Central Exchange Inc. (CENEX)** | |
| Laurel, MT | 41,450 |
| **Pacific Oasis Corp.**[12] | |
| Paramount, CA | 40,500 |
| **Southern Union Co.** | |
| **Southern Union Refining Co.** | |
| Lovington, NM | 36,100 |
| **Hunt Oil Co.** | |
| Tuscaloosa, AL | 33,500 |
| **Quintana Petrochemical Co.** | |
| Corpus Christi, TX | 33,300 |
| **Pester Corp.** | |
| **Pester Refining Co.** | |
| El Dorado, KS | 33,250 |

### Companies with a capacity of 10,001 to 30,000 b/d. Number of companies: 40; Total capacity: 801,866.

| Company | b/d |
|---|---|
| **Texas Independent Corp.** | |
| **Uni Refining Inc.**[13] | |
| Ingleside, TX | 30,000 |
| **Fletcher Oil & Refining Co.** | |
| Carson, CA | 29,500 |
| **Holly Corp.** | |
| **Navajo Refining Co.** | |
| Artesia, NM | 28,500 |
| **International Processors** | |
| St. Rose, LA | 28,356 |
| **Semarck California Inc.** | |
| **Independent Valley Energy Co.** | |
| Bakersfield, CA | 27,000 |
| **Mobile Bay Refining Co.** | |
| Chickasaw, AL | 26,600 |
| **Dorchester Gas Corp.** | |
| **Dorchester Refining Co.** | |
| Mount Pleasant, TX | 26,500 |
| **Asamera Oil (U.S.) Inc.** | |
| Commerce City, CO | 26,000 |
| **Marion Corp.** | |
| Theodore, AL | 25,000 |
| **Suburban Propane Gas Corp. Plateau Inc.** | |
| Bloomfield, NM | 16,800 |
| Roosevelt, UT | 7,500 |
| Total | 24,300 |
| **U.S.A. Petrochem Corp.** | |
| Ventura, CA | 24,000 |
| **Crysen Corp.** | |
| Woods Cross, UT[14] | 12,500 |
| **Sound Refining Inc.** | |
| Tacoma, WA | 11,070 |
| Total | 23,570 |
| **Kern Oil & Refinery Co.**[15] | |
| Bakersfield, CA | 21,400 |
| **Pauley Petroleum** | |
| **Newhall Refining Co. Inc.** | |
| Newhall, CA | 21,400 |
| **Time Oil Co.** | |
| **U.S. Oil & Refining Co.** | |
| Tacoma, WA | 21,400 |
| **Indiana Farm Bureau Cooperative Association** | |
| Mount Vernon, IN | 21,200 |
| **Marlex Petroleum Inc.** | |
| **Marlex Oil & Refining Inc.** | |
| Long Beach, CA | 21,100 |
| **Quaker State Oil Refining Corp.** | |
| Newell, WV | 9,515 |
| Smethport, PA | 6,700 |
| St. Mary's, WV | 4,500 |
| Total | 20,715 |
| **Ergon Refining Inc.** | |
| Vicksburg, MS | 20,600 |
| **E-Z Serv Inc.** | |
| **Amber Refining Inc.**[16] | |
| Fort Worth, TX | 20,000 |
| **Texas NAPCO Inc.**[17] | |
| St. James, LA | 20,000 |
| **Saber Energy Inc.** | |
| **Saber Refining Co.** | |
| Corpus Christi, TX | 19,320 |
| **McTan Refining Corp.** | |
| St. James, LA | 19,300 |
| **Hudson Oil Co. Inc.** | |
| **Hudson Refining Co. Inc.** | |
| Cushing, OK | 19,000 |
| **Oklahoma Refining Co.** | |
| Thomas, OK | 9,800 |
| Cyril, OK | 9,200 |
| Total | 19,000 |

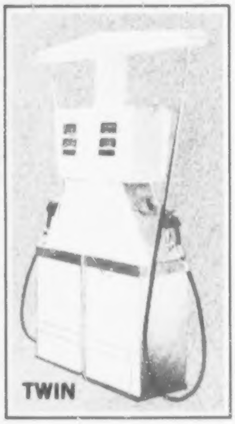
# *Universel*®

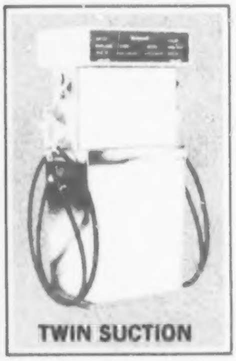
# REMANUFACTURED PUMPS WITH THE

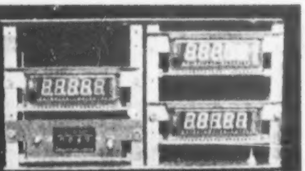
Universel
000.00
TOTAL SALE
000.00
GALLONS
2.519
2.519
000.00
TOTAL SALE
000.00
GALLONS

# *Electronic Computer*

Shown with ECON-O-REEL Retriever with 3/4 x 3/4 x 20' Hose.







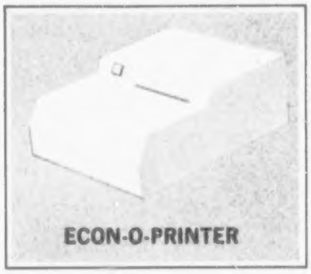
**UNIQUE non-volatile memory circuit can retain data up to 8 years without any type of electrical backup. Fail-safe circuit design triggers all data from operating memory into non-volatile memory when power fails. When power returns circuit transfers data back to the operating memory and pump continues normal function.**

Incorporates the latest technology switching power supply that gives the highest performance with least possible heat buildup that eliminates the necessity for fans. Wide temperature range components eliminate necessity of heater.

Complete bezel assembly removal is simplified for easy access to computer for manual price change or service. All electronic components are completely assessible. Utilizes new type electronic vacuum-fluorescent read-out that is easily readable in bright light. Can price up to $9.999 per gallon. Remote price change capability.

**Has been in field service for over two and one-half years without a readout failure.**

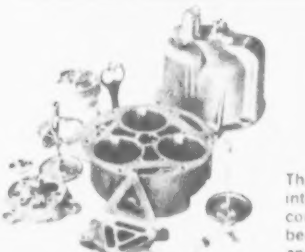
**REMOTE DUAL PRICE CAPABILITY FOR CREDIT AND/OR CASH SALES.**



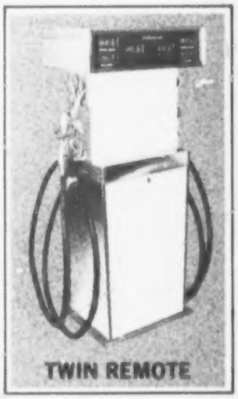
**UNIVERSEL CONTROLLER**

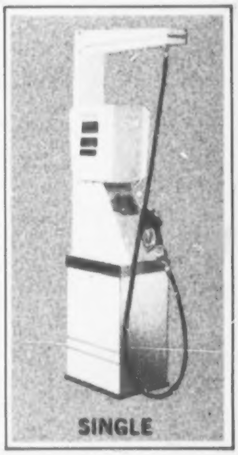
Universel Controller

Handles up to 16 hoses for self-service with the Universel 4000: Pre-Pay or Post-Pay — Money or Volume. Has remote price setting for up to 16 hoses and can remotely totalize 16 hoses. REQUIRES ONLY ONE 4 CONDUCTOR SHIELDED CABLE TO COMMUNICATE WITH UP TO 16 HOSES. Can interface with Universel Printer to give printed receipts and shift totals.



The only parts used from the old pump are the used internal components such as shown here. These are not components that have just been "repaired." They have been rebuilt all the way through... completely torn down, and all parts meticulously cleaned, worn parts replaced.





**211 INTERCOM**

Has built-in siren alarm to stop drive-offs.

## *Universel*® *Epsco, Inc.*

- 1494 ELLSWORTH IND. DR., N.W.
- ATLANTA, GA. 30318
- PHONE 404-351-2740

| Company | b d |
|---|---|
| **Texas Oil & Chemical Co.** | |
| **South Hampton Refining Co.** | |
| Silsbee, TX | 18,100 |
| **Giant Industries Inc.**[18] | |
| Gallup, NM | 18,000 |
| **American Ultramar Ltd.** | |
| **Beacon Oil Co.**[19] | |
| Hanford, CA | 17,300 |
| **MacMillan Ring-Free Oil Co. Inc.** | |
| Long Beach, CA | 11,000 |
| Norphlet, AK | 5,880 |
| Total | 16,880 |
| **V G S Corp.** | |
| **Southland Oil Co.** | |
| Sandersville, MS | 11,000 |
| Lumberton, MS | 5,800 |
| Total | 16,800 |
| **Ultramar Co. Ltd.** | |
| **Golden Eagle Refining Co. Inc.** | |
| Carson, CA | 16,170 |
| **Tomlinson Refining Inc.** | |
| **Pioneer Refining Ltd.** | |
| Nixon, TX | 15,000 |
| **CPI Oil & Refining Inc.** | |
| Lake Charles, LA | 14,000 |
| **Gary Energy Co.** | |
| **Gary Western Co.**[20] | |
| Fruita, CO | 13,100 |
| **Gladieux Refinery Inc.** | |
| Fort Wayne, IN | 12,900 |
| **Hermes Products Co.** | |
| **Wyoming Refining Co.** | |
| Newcastle, WY | 12,555 |
| **Petraco-Valley Oil & Refining Co.** | |
| Brownsville, TX | 12,300 |
| **Tonkawa Refining Co.** | |
| Arnett, OK | 12,000 |
| **World Oil Co.** | |
| **Sunland Refining Corp.** | |
| Bakersfield, CA | 12,000 |
| **Celeron Oil & Gas Co.**[21] | |
| Mermentau, LA | 11,000 |

**Companies with a capacity of 10,000 b d or less. Number of companies: 44; Total capacity: 225,575.**

| Company | b d |
|---|---|
| **Demenno-Kerdoon** | |
| Compton, CA | 10,000 |
| **Mitchell Energy Corp.**[22] | |
| **Liquid Energy Corp.** | |
| Bridgeport, TX | 10,000 |
| **San Joaquin Refining Co.** | |
| Bakersfield, CA | 10,000 |
| **Howell Corp.** | |
| **Howell Hydrocarbons Inc.** | |
| San Antonio, TX | 9,900 |
| **Moore & Munger Inc.** | |
| **Cross Oil & Refining Co.**[23] | |
| Smackover, AR | 9,400 |
| **Sierra Anchor Sierra Energy Association** | |
| **Anchor Refining Co. Inc.** | |
| McKittrick, CA | 9,000 |
| **Canal Refining Co.** | |
| Church Point, LA | 8,000 |
| **Caribou-Four Corners Oil Co.** | |
| Woods Cross, UT | 8,000 |
| **Laketon Refining Corp.**[24] | |
| Laketon, IN | 7,900 |
| **Vicksburg Refining Inc.** | |
| Vicksburg, MS | 7,900 |
| **Allied Materials Corp.** | |
| Stroud, OK | 7,500 |
| **Mallard Resources** | |
| Gueydan, LA | 7,400 |
| **Witco Chemical Corp.** | |
| Bradford, PA | 6,841 |
| **Huntway Refining Co. of Northern California** | |
| Van Nuys, CA | 6,750 |
| **Claiborne Gasoline Co.** | |
| Lisbon, LA | 6,500 |
| **Simmons Oil Co.** | |
| **Simmons Refining Corp.** | |
| Great Falls, MT | 6,300 |
| **Arizona Fuel Corp.** | |
| Fredonia, AZ | 6,000 |
| **Morrison Petroleum Co.** | |
| Woods Cross, UT | 6,000 |
| **Thriftway Oil Co.** | |
| Bloomfield, NM | 4,750 |
| Graham, TX | 1,184 |
| Total | 5,934 |
| **Lakeside Refining Co.** | |
| Kalamazoo, MI | 2,700 |
| **Crystal Refining Co.** | |
| Carson City, MI | 3,000 |
| Total | 5,700 |
| **Flying J Inc.** | |
| Cutbank, MT | 5,600 |
| **Somerset Refinery Inc.** | |
| Somerset, KY | 5,500 |
| **Warrior Asphalt Co. of Alabama** | |
| Holt, AL | 5,500 |
| **Huntway Refining Co.** | |
| Wilmington, CA | 4,750 |
| **Kenco Refining Inc.** | |
| Wolf Point, MT | 4,700 |
| **Nevada Refining Co.** | |
| Tonopah, NV | 4,500 |
| **Calumet Industries Inc.** | |
| **Calumet Refining Co.** | |
| Princeton, LA | 4,400 |
| **Oxnard Refinery** | |
| Oxnard, CA | 4,000 |
| **Thagard Oil Co.** | |
| **Lunday-Thagard Oil Co.** | |
| South Gate, CA | 3,700 |
| **Eddy Refining Co.** | |
| Houston, TX | 3,250 |
| **Crystal Oil Co.**[25] | |
| Stephens, AR | 3,200 |
| **Port Petroleum** | |
| Stonewall, LA | 3,200 |
| **B-T Energy Corp.** | |
| Louisville, KY | 3,000 |
| **GNC Energy Corp.** | |
| Greensboro, NC | 3,000 |
| **Young Refining Corp.** | |
| Douglasville, GA | 2,700 |
| **Petromax** | |
| Houston, TX | 2,000 |
| **Kentucky Oil & Refining Co** | |
| Troy, IN | 1,000 |
| Betsy Lane, KY | 600 |
| Total | 1,600 |
| **Flint Chemical Co.** | |
| San Antonio, TX | 1,500 |
| **Silver Eagle Refining Co.** | |
| La Barge, WY | 1,500 |
| **Moreco Energy Inc.** | |
| McCook, IL | 1,000 |
| **Petrolite Corp.** | |
| Kilgore, TX | 1,000 |
| **Shore Inc.** | |
| Kilgore, TX | 550 |
| **American Refining Group Inc.** | |
| Indianola, PA | 200 |
| **Mountaineer Refining Co. Inc.** | |
| La Barge, WY | 200 |

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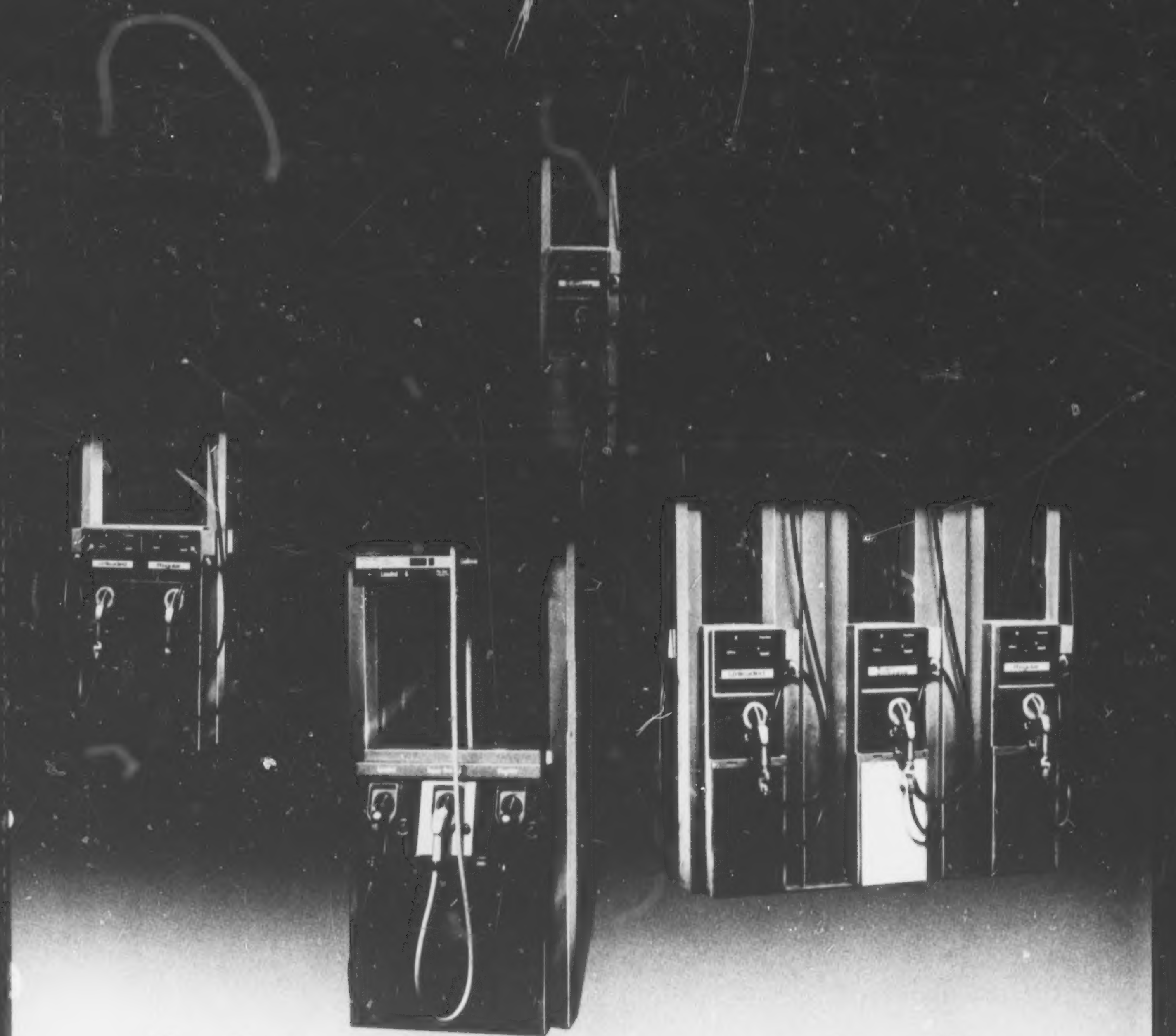
[1] Formerly Coastal Corp
[2] Merged with Gulf States Oil & Refining Co
[3] Formerly Cotton Valley Solvents Co
[4] Idle since 1974
[5] Formerly Earth Resources Co
[6] Formerly CRA, Inc
[7] Formerly Independent Refining Corp
[8] Formerly Little America Refining Co
[9] Formerly Tesoro Alaskan Petroleum Corp
[10] Formerly Coral Petroleum Inc
[11] Formerly Coral Petroleum Inc
[12] Formerly Conoco Inc
[13] Formerly Texas Independent Corp
[14] Formerly Western Refining Corp
[15] Formerly Kern County Refinery Inc
[16] Formerly E Z Serv Refining Inc
[17] Formerly La Jet Inc
[18] Formerly Shell Oil Co
[19] Formerly American Ultramar Ltd
[20] Formerly Gary Refining Co
[21] Formerly Slapco
[22] Formerly Mitchell Energy & Development
[23] Formerly Cross Oil & Refining Co. of Arkansas
[24] Formerly Laketon Asphalt Refining Co
[25] Formerly Berry Petroleum Co

Source: Petroleum Supply Annual, 1983, Energy Information Administration



# If all locations were exactly alike, Southwest would offer one dispenser.

Locations differ dramatically in available space, in traffic pattern, and in volume potential.

That's why Southwest offers dispensers featuring strategic as well as cosmetic differences. Thus, we provide fuel marketers with meaningful choices available from no one else.

And every Southwest dispenser comes equipped with the most reliable, most accurate, most flexible electronics in the industry.

**Take our high volume "Plus Series."**

The unique 1 + 1, 2 + 2 and 3 + 3 dispensers enable the fuel marketer to maximize throughput at high volume locations. Because a pump computer is provided for each hose, all hoses can be utilized simultaneously. This maximizes simultaneous fueling capacity and greatly reduces drive-aways and drive-bys in peak traffic hours. This series is the only logical choice for potentially high volume locations where islands or driveway space is available.

**Or take our space-saving 3PD.**

In locations where space availability limits volume, the Southwest 3PD is the ideal dispenser. Though each bank of three hoses services just one customer at a time, that customer is provided the convenience of selecting from three grades of fuel. And because of the 3PD's shared electronics — one pump computer serves each bank of three hoses — the cost per hose is reduced significantly.

To find out more about Southwest dispensers and electronics, please write or call. Our address and phone number are provided below.

Southwest Pump Company
P.O. Drawer 280
Bonham, Texas 75418
214/583-3134

Distributors and Jobbers nationwide

SOUTHWEST
Energy Control Systems

# U.S. Refinery Closings—1981-1983

**The pace slowed in 1983, but the U.S. refining industry still lost 11 more refineries with a total capacity of 501,350 b/d.**

The Energy Information Administration said that the 11 refineries were either shut down permanently or mothballed indefinitely as of the end of the year.

Added to the shutdowns in 1981 and 1982, this means the refining capacity has now been reduced by 2.1-million b/d. Some of this capacity can be put back into operation, but the longer it is mothballed the more costly and difficult that becomes.

## Shutdowns in 1983

| PAD District Refinery | b/d |
|---|---|
| **Midwest** | |
| **Mobil Oil Corp.**, Augusta, Kan | 50,000 |
| **Gulf Coast** | |
| **Erickson Refining Corp.**, Pt. Neches, Texas | 30,000 |
| **GHR Energy Corp.**, Good Hope, La | 300,000 |
| **Independent Refining Corp.**, Winnie, Texas | 50,000 |
| **Marion Corp.**, Theodore, Ala | 25,000 |
| **McTan Refining Corp.**, St. James, La | 19,300 |
| **Shore Inc.**, Kilgore, Texas | 550 |
| **Rocky Mountain** | |
| **Silver Eagle Oil, Ltd.**, La Barge, Wyo | 1,500 |
| **West Coast** | |
| **Anchor Refining Co.**, McKittrick, Calif | 9,000 |
| **Arizona Fuels Corp.**, Fredonia, Ariz | 6,000 |
| **Demenno Resources**, Compton, Calif | 10,000 |
| **U.S. Total for 1983** | **501,350** |

## Shutdowns in 1982

| PAD District Refinery | b/d |
|---|---|
| **East Coast** | |
| **Amoco Oil Co.**, Baltimore, Md | 15,000 |
| **Ashland Oil**, Buffalo, N.Y | 64,000 |
| **Seminole Refining**, St. Marks, Fla | 15,000 |
| **Total** | **94,000** |
| **Midwest** | |
| **Amoco Oil Co.**, Sugar Creek, Mo | 104,000 |
| **Ashland Oil**, Findlay, Ohio | 20,400 |
| **CRA**, Scottsbluff, Neb | 5,600 |
| **CRA**, Phillipsburg, Kans | 26,400 |
| **Dillman Oil Recovery**, Oblong, Ill | 1,200 |
| **E-Z Serv Refining**, Shallow Water, Kans | 9,500 |
| **Energy Cooperative**, East Chicago, Ind | 126,000 |
| **Industrial Fuel & Asphalt of Indiana**, Hammond, Ind | 7,600 |
| **Kentucky Oil & Refining Co.**, Betsy Lane, Ky | 3,000 |
| **Mid-America Refining Co.**, Chanute, Kans | 3,000 |
| **Northland Oil & Refining Co.**, Dickinson, N.D | 5,000 |
| **Phillips Petroleum Co.**, Kansas City, Kansas | 80,000 |
| **Texaco**, West Tulsa, Okla | 50,000 |
| **Texas America Petrochemicals**, West Branch, Mich | 11,500 |
| **Total** | **453,200** |
| **Gulf Coast** | |
| **Bayou State Oil Corp.**, Hosston, La | 3,000 |
| **Bronco Refining Co.**, Houston, Tex | 2,250 |
| **Caribou-Four Corners Oil Co.**, Kirtland, N.M | 2,400 |
| **Clinton Manges**, Palestine, Tex | 6,000 |
| **Copano Refining Co.**, Ingleside, Tex | 11,100 |
| **Dow Chemical U.S.A.**, Freeport, Tex | 190,000 |
| **Eagle Refining Corp.**, Jacksboro, Tex | 1,800 |
| **Giant Industries**, Farmington, N.M | 13,500 |
| **Independent Refining Corp.**, Pt. Neches, Tex | 30,000 |
| **Independent Refining Corp.**, Winnie, Tex | 50,000 |
| **Lake Charles Refining Co.**, Lake Charles, La | 28,000 |
| **Listo Refining Co.**, Donna, Tex | 3,500 |
| **Longview Refining Co.**, Longview, Tex | 14,000 |
| **Natchez Refining Co.**, Natchez, Miss | 16,000 |
| **Petraco-Valley Oil & Refining Co.**, Brownsville, Tex | 12,300 |
| **Placid Oil Co.**, Mont Belvieu, Tex | 8,500 |
| **Quitman Refining Co.**, Quitman, Tex | 6,600 |
| **Rio Grande Crude Refining**, Brownsville, Tex | 9,500 |
| **Rio Grande Recovery Systems**, Brownsville, Tex | 1,000 |
| **Schulze Processing**, Tallulah, La | 1,760 |
| **Sentry Refining**, Corpus Christi, Tex | 25,000 |
| **Shepard Oil Co.**, Jennings, La | 10,000 |
| **Sooner Refining Co.**, Darrow, La | 8,000 |
| **T & S Refining**, Jennings, La | 10,500 |
| **TARCO**, Euless, Tex | 6,000 |
| **Tipperary Refining Co.**, Wickett, Tex | 7,320 |
| **Vicksburg Refining Co.**, Vicksburg, Miss | 7,900 |
| **Wickett Refining Co.**, Wickett, Tex | 8,000 |
| **Total** | **493,930** |
| **Rocky Mountain** | |
| **C & H Refinery**, Lusk, Wyo | 180 |
| **Caribou-Four Corners Oil Co.**, Woods Cross, Utah | 7,200 |
| **Glacier Park Co.**, Osage, Wyo | 10,000 |
| **Husky Oil Co.**, Cody, Wyo | 11,500 |
| **Morrison Petroleum Co.**, Woods Cross, Utah | 6,300 |
| **Sage Creek Refining Co.**, Cowley, Wyo | 1,000 |
| **Texaco**, Casper, Wyo | 21,000 |
| **Total** | **57,180** |
| **West Coast** | |
| **Gibson Oil & Refining Co.**, Bakersfield, Calif | 4,600 |
| **Lunday-Thagard Oil Co.**, South Gate, Calif | 12,000 |
| **Sabre Oil & Refining**, Bakersfield, Calif | 10,000 |
| **United Independent Oil Co.**, Tacoma, Wash | 730 |
| **West Coast Oil Co.**, Oildale, Calif | 21,000 |
| **Total** | **48,330** |
| **U.S. Total for 1982** | **1,146,640** |

## Shutdowns in 1981

| PAD District Refinery | b/d |
|---|---|
| **East Coast** | |
| **ATC Petroleum**, Wilmington, N.C | 11,900 |
| **ATC Petroleum**, Newington, N.H | 13,400 |
| **Manatee Energy Co.**, Port Manatee, Fla | 28,400 |
| **Mobil Oil Corp.**, Buffalo, N.Y | 43,000 |
| **Total** | **96,700** |
| **Midwest** | |
| **Amoco Oil Co.**, Wood River, Ill | 104,000 |
| **Conoco Inc.**, Wrenshall, Minn | 23,500 |
| **Dow Chemical U.S.A.**, Bay City, Mich | 20,000 |
| **Energy Development**, Crossville, Ill | 1,000 |
| **Gulf Oil Corp.**, Toledo, Ohio | 50,300 |
| **Kentucky Oil and Refining Co.**, Troy, Ind | 1,500 |
| **Texaco**, Lockport, Ill | 72,000 |
| **Wireback Oil Co.**, Plymouth, Ill | 1,800 |
| **Total** | **274,100** |
| **Gulf Coast** | |
| **Adobe Refining Co.**, La Blanca, Tex | 5,200 |
| **Carbonit Refinery**, Hearne, Tex | 11,000 |
| **Gulf Oil Corp.**, Venice, La | 28,700 |
| **Southern Union Refining Co.**, Monument, N.M | 5,400 |
| **Southland Oil Co.**, Yazoo City, Miss | 5,500 |
| **Texas Refining Co.**, Midland, Tex | 2,500 |
| **Texas Standard Refining**, Houston, Tex | 1,800 |
| **Total** | **60,100** |
| **Rocky Mountain** | |
| **Glenrock Refinery**, Glenrock, Wyo | 6,000 |
| **Southwestern Refining Co.**, La Barge, Wyo | 1,040 |
| **Total** | **7,040** |
| **West Coast** | |
| **Quad Refining Corp.**, Bakersfield, Calif | 7,000 |
| **Road Oil Sales**, Bakersfield, Calif | 6,000 |
| **Total** | **13,000** |
| **U.S. Total for 1981** | **450,940** |

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Source: Department of Energy, Petroleum Supply Annual for 1981; Petroleum Supply Monthly, February, 1983 for 1982.

# Association Who, What and Where

## American Petroleum Institute

2101 L St., N.W.
Washington, DC 20005
Phone (202) 682-8000
6,750 members election Nov. 84

## Petroleum Marketers Association of America

**(Formerly National Oil Jobbers Council)**
1707 H St. NW
Washington, D.C. 20005
Phone (202) 331-1198
Represents more than 20,000 independent petroleum marketers
election Nov. 85
**Pres:** Jack Griffith, Griffith Petroleum Inc., Stillwater, OK
**Sr. VP:** David Robinson, Robinson Oil Co., Garden City, KS
**Northeastern VP:** William E. Campbell, Campbell Oil Co., Olean, NY
**North Central VP:** Ron McGauvran, Dormac Oil Co., Clinton, IA
**Southeastern VP:** Tom Potter Sr., Tom Potter Oil Co., Morehead City, NC
**South Central VP:** William P. Wright, Western Marketing Co., Abilene, TX
**Western VP:** Gus Fleischli, Fleischli Oil Co., Cheyenne, WY
**Exec VP:** Philip R. Chisholm

## SIGMA

**Society of Independent Gasoline Marketers of America**
8300 Greensboro Dr., Suite 640
McLean, VA 22102
Phone (703) 448-8585
250 members election Nov.
**Pres:** M. S. Kirschner, Kirschner Bros. Oil Co., Haverford, PA
**Exec. Dir:** Kenneth Doyle

## Petroleum Equipment Institute

P.O. Box 2380
Tulsa, OK 74101
Phone (918) 743-9941
1000 members election Sept. 84
**Pres:** Frank Grizzell, Kentucky Petroleum Equip. Co., Lexington, KY
**Exec. VP:** Howard Upton

## Petroleum Marketing Education Foundation

P.O. Box 11187
3008 Millwood Dr.
Columbia, SC 29211
Phone (803) 252-5646
800 contributors election Jan. 85
**Pres:** John Snee, Eastern Shore Oil Co., Fruitland, MD 21826
**Exec. VP:** J. Edgar Eubanks

## REGIONAL

**Arizona Oil Marketers Assn.**
P.O. Box 26905
Phoenix, AZ 85068
Phone (602) 942-9173
150 members election June
**Pres.:** Bob Daniel, Woody's Petroleum, Wickenburg, AZ
**Assn. Exec:** Andy Pala

**Arkansas Oil Marketers Assn.**
P.O. Box 229
Little Rock, AR 72203
Phone (501) 374-6293
**Exec. VP:** Gene Goss

**California Independent Oil Marketers Assn.**
555 Capitol Mall, Suite 655
Sacramento, CA 95814
Phone (916) 441-5166
477 members election Nov. 84
**Pres:** Mitch Dion, M.O. Dion & Sons, Inc., Long Beach, CA
**Exec. VP:** James F. Divine

**Colorado Petroleum Mktrs. Assn.**
4465 Kipling, Suite 104
Wheat Ridge, CO 80033
Phone (303) 422-7805
150 members election Nov. 84
**Exec. VP:** Roy A. Turner

**Empire State Petroleum Assn.**
8 Westchester Plaza
Elmsford, NY 10523
Phone (914) 592-8810
**Pres:** Frederick Giffords, Giffords Oil, Floral Park, NY
**Exec. VP:** Robert D. Lynch

**Florida Petroleum Marketers Assn.**
209 Office Plaza
Tallahassee, FL 32301
Phone (904) 877-5178
330 members election Aug. 84
**Pres:** Jim Hinton Jr., Jim Hinton Oil Co., Live Oak, FL
**Pres.-Elect:** Davis Rembert, United Fuels Corp., Gainesville, FL 32601
**Exec. VP:** Carl Adams

**Fuel Merchants Assn. of New Jersey**
66 Morris Ave.
Springfield, NJ 07081
Phone (201) 379-1100
477 members election Spring
**Pres:** H. Craig Allen, Central Jersey Oil Co., Lakewood, NJ
**Exec. VP:** Fred Sacco

**Georgia Oilmen's Assn.**
3300 NE Expressway, Suite 8-P
Atlanta, GA 30341
Phone (404) 451-5916
355 members election May
**Pres:** Shack Wimbish, Colonial Oil Industries, Savannah, GA 31402
**Exec. VP:** Roger T. Lane

**Idaho Intermountain Oil Marketers**
2615 Ona St.
Boise, ID 83705
Phone (208) 344-1152
104 members election June
**Pres:** Kent Johnson, Fearless Farris, Boise, ID
**State Exec:** Frank Sattler

**Illinois Petroleum Marketers Assn.**
112 West Cook St.
P.O. Box 1508
Springfield, IL 62704
Phone (217) 544-4609
870 members election Mar.
**Pres:** Donald Gleiber, Moffitt Oil Co., Waterloo, IL 62298
**Exec. VP:** William R. Deutsch

**Independent Oil Men's Assn. of New England**
(Serves Mass., N.H., Vt., R.I.)
21 Sea Breeze Ln.
Newcastle, NH 03854
Phone (603) 436-8424
75 members election Oct. 84
**Pres:** Wilfred H. Hall

**Independent Connecticut Petroleum Assn.**
621 Farmington Ave.
Hartford, CT 06105
Phone (203) 236-0851
350 members election June 84
**Pres:** John E. Cunneen, Danielson Oil Co., Danielson, CT
**Exec. VP:** Charles S. Isenberg

**Indiana Oil Marketers Assn. Inc.**
8780 Purdue Rd.
Indianapolis, IN 46268
Phone (317) 875-9057
350 members election Sept. 85
**Pres:** Richard L. Johnson, Johnson Oil Co., Columbus, IN
**Exec. Dir:** L. Jack Stough

**Inland Empire Chapter (IOMA)**
E. 217 Third
Spokane, WA 99202
Phone (509) 747-3158
27 members election June
**Pres:** Don Micheisen, North Central Petroleum, Omak, WA 98841
**Exec. VP:** Don Wessels

**Intermountain Oil Marketers Assn.**
(Serves Ariz., Idaho, Mont., Nev., Utah)
1800 S. West Temple #300
Salt Lake City, UT 84115
Phone (801) 484-8719
506 members election June
**Pres:** Dennie Dunn, Dunn Jardine Oil, Salt Lake City, UT
**Exec. Dir:** Gerald Tedrow

**Petroleum Marketers of Iowa**
P.O. Box 6156
Des Moines, IA 50309
Phone (515) 244-6273
676 members election Feb.
**Pres:** Larry Watson, Watson Oil Co., Stanton, IA 51573
**Managing Dir:** E. A. Kistenmacher

**Kansas Oil Marketers Assn.**
804 Merchants Nat'l Bank Bldg.
Topeka, KS 66612
Phone (913) 233-9655
285 members election Mar.
**Pres:** Stanley Brown, T&E Oil Co., Hutchinson, KS
**Exec. Dir:** Charles H. Nicolay

**Kentucky Petroleum Marketers Assn.**
612-A Shelby Street, Frankfort, KY 40601
Phone (502) 875-3742
100 members election Mar. 85
**Pres:** Winslow Baker, Baker Petroleum Co., Warsaw, KY
**Exec. Dir:** Thomas H. Maxedon

**Louisiana Oil Marketers Assn.**
P.O. Box 1
Shreveport, LA 71161
Phone (318) 221-4113
400 members election July
**Pres:** Kevin J. Gaubert, Gaubert Oil Co., Thibodaux, LA
**Exec. Dir:** Robert K. Butcher

**Maine Oil Dealers Assn.**
P.O. Box 536
Yarmouth, ME 04096
Phone (207) 846-5113
300 members election June
**Chmn:** Richard Hawkins, Hamel Fuels

**Michigan Petroleum Assn.**
1200 Mich. Nat'l. Tower Bldg.
Lansing, MI 48933
Phone (517) 487-9139
365 members election Apr.
**Exec. Dir:** Thomas G. Cordell

**Mid-Atlantic Petroleum Distributors Assn. (formerly Petroleum Council of Maryland**
198 Thomas Johnson Dr.
Frederick, MD 21740
Phone (301) 694-0808
250 members election Oct.
**Pres:** Peter F. Horrigan, Steuart Petroleum Co., Beltsville, MD 20705
**Exec. VP:** Robert Ryan

**Midwest Petroleum Marketers Assn.**
10400 Higgins Rd., Suite 126
Rosemont, IL 60018
Phone (312) 298-5370
275 members election May
**Pres:** Ernst Shafer, Smith Shafer Oil Co., Rockford, IL
**Exec. Dir:** Donald E. Woodrick

**Mississippi Petroleum Marketers Assn.**
P.O. Box 257
Jackson, MS 39205
Phone (601) 353-1624
2 members election July 84
**Pres:** Dan Magruder, Magruder Oil Co., McComb, MS
**Exec. Dir:** Marshall Lusk

**Missouri Oil Jobbers Assn.**
238 E. High St., Suite 3A
Jefferson City, MO 65101
Phone (314) 635-7117
400 members election Feb.
**Pres:** Gary Collier, Collier Oil Co., Moberly, MO
**Exec. Dir:** John R. Hahn

**Montana Intermountain Oil Marketers**
1217 Widner
Helena, MT 59601
Phone (406) 442-6647
111 members election June
**Pres:** Harry Simons, Simons Petroleum, Shelby, MT
**Assn. Exec:** John Braunbeck

**Nebraska Petroleum Marketers, Inc.**
1320 Lincoln Mall
Lincoln, NE 68508
Phone (402) 474-6691
392 members election Mar.
**Pres:** Harold Swanson, Calhoun Oil Co., Ft. Calhoun, NE 68023
**Exec. Dir:** George L. Watters

**Nevada Chapter (IOMA)**
1800 S. West Temple
Salt Lake City, UT 84115
Phone (801) 484-8719
41 members election June
**Pres:** Darwin Pilger, D&G Oil Co., Las Vegas, NV
**Exec. Dir:** Gerald Tedrow

**New Mexico Petroleum Mktrs. Assn.**
4465 Kipling, Suite 104
Wheat Ridge, CO 80033
Phone (303) 422-7805
100 members election Nov. 84
**Exec. VP:** Roy A. Turner

**North Carolina Oil Jobbers Assn.**
P.O. Box 30519
Raleigh, NC 27606
755 members election Oct. 84
**Pres:** Rogers Clark, Sampson-Bladen Oil Co., Clinton, NC
**Exec VP:** Don M. Ward

**Northwest Petroleum Assn.**
2345 Rice St., Suite 173
St. Paul, MN 55113
Phone (612) 484-7227
600 members election March
**Pres:** Fred Curtis, Curtis Oil, Duluth, MN
**Exec. Dir:** Gerald W. Everett

**Ohio Petroleum Mktrs. Assn.**
50 West Broad Street, Suite 1130
Columbus, OH 43215
Phone (614) 224-6271
400 members election Spring
**Pres:** Don Lykins, Lykins Oil Co., Milford, OH
**Exec. VP:** Roger F. Dreyer

**Oil Jobbers of Wisconsin**
1220 Femrite Dr.
Madison, WI 53716
Phone (608) 221-4771
500 members election Apr.
**Pres:** Charles McManus, McManus Oil Co., Brodhead, WI
**Mgr. Dir:** Raymond Karnes

**Oklahoma Oil Mktrs. Assn.**
5115 North Western
Oklahoma City, OK 73118
Phone: (405) 842-6625
300 members election March
**Pres:** Paul Welch, Welch Oil Co., Wichita Falls, TX
**Exec. VP:** Charles V. Stuckey

**Oregon Oil Jobbers Assn.**
3130 SW Ridgewood Rd.
Portland, OR 97225
Phone: (503) 292-1495
98 members election Nov
**Pres:** Mike Hawkins, Hawk Oil Co., Medford, OR
**Exec. VP:** Bob Kupfer

**Pacific Oil Conference**
555 Capitol Mall, Suite 655
Sacramento, CA 95814
Phone: (916) 446-1312
784 members election Sept. 84
**Gen. Chmn:** Jack Todd, Truax Oil Co., Corvallis, OR
**Exec. Dir:** James F. Divine

**Pennsylvania Petroleum Assn.**
#2 Shore Drive Ctr., Suite 121
2001 N. Front St.
Harrisburg, PA 17102
Phone: (717) 233-5838
715 members election Sept. 84
**Pres:** John L. McDowell, III, McDowell Oil Service, Inc., Bloomsburg, PA 17815
**Exec. Dir:** John P. Zinkand

**Petroleum Council of Maryland**
(Name changed to Mid-Atlantic Petroleum Distributors Assn.)

**South Carolina Oil Jobbers Assn.**
1809 Godsden
P.O. Box 64
Columbia, SC 29202
Phone: (803) 765-9570
280 members election Dec
**Pres:** Frank "Willie" Wiles, Barnett Oil Co.
**Exec. Dir:** Dick deMontmollin

**South Dakota Independent Oil Men's Assn.**
P.O. Box 1058
Pierre, SD 57501
Phone: (605) 224-8606
election Sept
**Pres:** Rudy Gerstner, Gerstner Oil Co., Yankton, SD
**Exec. Dir:** Curt Neuharth

**Tennessee Oil Marketers Assn.**
P.O. Box 23256
Nashville, TN 37202
Phone: (615) 242-4377
184 members election Nov. 84
**Pres:** E. J. Parker Jr., P&B Oil Co., Hartsville, TN
**Exec. Dir:** Elizabeth Walker

**Texas Oil Marketers Assn.**
701 W. 15th St.
Austin, TX 78701
Phone: (512) 476-9547
1,000 members election April
**Pres:** Homer McGinnis, Pride of Texas Distributing Co., Arlington, TX
**Exec. VP:** Dave Fellers

**Utah Chapter (IOMA)**
1800 S. West Temple
Salt Lake City, UT 84115
Phone: (801) 484-8719
120 members election June
**Pres:** Jerry Wagstaff, Holiday Oil, W. Valley City, UT 84119

**Virginia Petroleum Jobbers Assn.**
P.O. Box 6344
Richmond, VA 23230
Phone: (804) 282-7534
213 members election Oct. 84
**Pres:** Terry Phelps, Whiting Oil Co., Roanoke, VA
**Exec. Dir:** E. D. Catterton

**Washington Oil Marketer's Assn.**
10540 Valmay Ave., NW
Seattle, WA 98177
Phone: (206) 362-7319
election Dec. 84

**West Virginia Oil Jobbers-Distributors Assn.**
Atlas Bldg., Suite 806
Charleston, WV 25301
Phone: (304) 343-5885
75 members election Sept. 84
**Pres:** Oscar B. Thompson, Dawson-Thompson Oil Co., Huntington, WV 26703
**Exec. Dir:** David W. Haines

**Wyoming Petroleum Mktrs. Assn.**
4465 Kipling, Suite 104
Wheat Ridge, CO 80033
Phone: (303) 422-7805
70 members election Nov. 84
**Exec. VP:** Roy A. Turner

## PRIVATE BRAND

**Georgia Independent Oil Men's Assn.**
(Name changed to Southeastern Independent Oil Marketers 7-1-80)

**Independent Gasoline Marketers Council**
1015 18th St. N.W.
Washington, DC 20036
Phone: (202) 857-0220
20 members
**Pres:** Jack A. Blum

**Independent Oil Men's Assn. of Alabama**
200 Century Park South, Suite 126
Birmingham, AL 35226
Phone: (205) 823-4857
165 members election June 84
**Exec. Dir:** Rick McIntosh

**Kentucky Independent Gasoline Marketers Assn.**
3906 Dupont Sq. S.
Louisville, KY 40207
Phone: (502) 897-7167
60 members election Jan
**Pres:** Keith Miller, Transit Oil, Louisville, KY 40203
**Exec. Dir:** Jesse F. Simpson

**Mid-America Gasoline Mktrs. Assn.**
(Disbanded in 1982)

**Serve Yourself & Multiple Pump Assn.**
3960 Wilshire Blvd., Ste. 401-A
Los Angeles, CA 90010
Phone: (213) 387-3114
election Nov
**Pres:** R. A. Sturegeon
**Exec. Sec:** Paul T. Erdos

**Southeastern Independent Oil Marketers Assn.**
6065 Barfield Rd. NE, Suite 104
Atlanta, GA 30328
Phone: (404) 256-5541
502 members election June 84
**Pres:** Keith Greenfield, O.K. Oil Co., Griffin, GA 30233
**Exec. Dir:** Ivan Maple

**Texas Independent Producers & Royalty Owners Assn.**
1910 InterFirst Tower
Austin, TX 78701
Phone: (512) 477-4452
5,400 members election June 84
**Pres:** Bruce Anderson, Anderson Oil Corp., Houston, TX
**Exec. VP:** Julian G. Martin

## EQUIPMENT

**Equipment & Tool Institute**
1545 Waukegan Rd.
Glenview, IL 60025
Phone: (312) 729-8550
**Exec. Mgr:** Don R. Proven

**International Carwash Assn. National Carwash Council**
4415 W. Harrison St., Suite 200
Hillside, IL 60162
Phone: (312) 449-7430
2,500 members election June 84
**Exec. Dir:** R. R. Trantham

**National Conference on Weights and Measures**
P.O. Box 3137
Gaithersburg, MD 20878
Phone: (301) 921-3677
1,500 members election July 84

**The Packaging Institute, USA**
20 E. 46th St.
New York, NY 10017
Phone: (212) 687-8875
3,000 members election June 84
**Pres:** Steve Resina, 572 Smith St., Brooklyn, NY 11231
**VP:** Robert Kelsey, Kelsey Corp., 271 Orchard Pl., Ridgewood, NJ 07450

**Steel Tank Institute**
666 Dundee Rd., #705
Northbrook, IL 60062
Phone: (312) 498-1980
65 members election Feb
**Pres:** J. Denny Stidham, Chicago Boiler Co., 1965 Clybourne Ave., Chicago, IL
**Exec. VP:** Brian C. Donovan

**Truck Trailer Manufacturers Assn.**
1020 Princess St., Alexandria, VA 22314
Phone: (703) 549-3010
200 members election May
**Pres:** Charles J. Calvin

## FUEL OIL

**Better Home Heat Council**
118 Cedar St.
Wellesley Hills, MA 02181
Phone: (617) 237-0730
250 members election Fall 84
**Chmn:** Donald G. Hughes, Hughes Oil Co., West Roxbory, MA
**Exec. Dir:** Jeffry W. Raynes

**Better Home Heat Council of New Hampshire**
25 Sea Breeze Lane
New Castle, NH 03854
Phone: (603) 436-8424
49 members election Dec
**Chmn:** Phil Corbett, Corbett Oil Co., Newport, NH
**Pres.:** Wilfred H. Hall

**Independent Heating Oil Dealers Assn.**
446 Powers Bldg.
Rochester, NY 14614
Phone: (716) 546-8288
14 members election June 84
**Pres:** Abraham Duziel, Orco Petroleum Co., Rochester, NY 14614
**VP:** Samuel Costanza

**National Assn. of Oil Heat Service Managers**
P.O. Box 380
Elmwood Park, NJ 07407
Phone: (201) 796-1821
1,500 members election June 84
**Pres:** William H. Erickson, H. W. Erickson Oil Co., Princeton, MA 01541
**Exec. VP:** Charles W. Parliman

**New England Fuel Institute**
20 Summer St., Box 888
Watertown, MA 02172
Phone: (617) 924-1000
1,032 members election Mar
**Chmn:** Robert Wesson, Wesson Oil Co., Waterbury, CT 06708
**Pres:** Charles H. Burkhardt

**New York Oil Heating Assn.**
225 W. 34th St., Rm. 1202
New York, NY 10122
Phone: (212) 695-1380
200 members election June
**Pres:** Walter Knittel, K. Co. Inc., Brooklyn, NY 11207
**Exec. VP:** James R. Wells

**Oil Fuel Institute of Florida**
P.O. Box 7729
Orlando, FL 32854
Phone: (305) 843-1198
35 members election Spring
**Pres:** Arnold Seaton, Eastern Seaboard Petroleum Co., Jacksonville, FL 32208
**Exec. Dir:** Mark V. Barker Jr.

**Oil Heat Assn. of Greater Washington**
(Name changed to Mid-Atlantic Petroleum Distributors Assn.)

**Oil Heat Institute**
5 Franklin Rd.
East Greenwich, RI 02818
Phone: (401) 885-1301
90 members election May
**Pres:** Peter Lombardi Jr., Hy-Test Oil Co., Johnson, RI 02919
**Exec. Dir:** J. Howard King

**Oil Heat Institute of Long Island**
Hanover Sq. Plaza
601 Veterans Memorial Hwy.
Hauppauge, NY 11788
Phone: (516) 360-0200
150 members election Jan. 85
**Pres:** Edward Minicozzi, General Utilities, Oyster Bay, NY 11771
**Exec. VP:** Kevin M. Rooney

**Oil Heat Institute of Oregon**
P.O. Box 42227
Portland, OR 97242
Phone: (503) 231-4850
**Exec. Dir:** Gregory M. Stewart

**Oil Heat Institute of Idaho**
P.O. Box 172
Boise, ID 83701
Phone: (208) 344-1152
37 members election Jan. 85
**Pres:** Bob Nicholes, Bonico, Caldwell, ID
**Dir:** Marvin Bodine

**Oil Heat Institute of Washington**
400 Dexter Ave., N
Seattle, WA 98109
Phone: (206) 623-8730
300 members election June 84
**Pres:** Roger Jensen, Port Orchard Oil, Port Orchard, WA 98366
**Exec. Dir:** C. Edward Bishop

**Oil Heat Institute of Upstate New York**
Chamber of Commerce Bldg.
55 St. Paul St.
Rochester, NY 14604
Phone: (716) 454-2220, x41
25 members, 20 associates
election Nov. 85
**Pres:** George Wilson, Rogers Fuel Corp., Rochester, NY
**Exec:** VP Mara G. Hynes

## LP-GAS

**National LP-Gas Assn.**
1301 W. 22nd St.
Oak Brook, IL 60521
Phone: (312) 986-4800
3,700 members election May
**Pres:** W. E. Denny, Petrolane Inc., Long Beach, CA
**Exec. VP:** J.D. Capps

## LUBRICATION

**American Society of Lubrication Engineers**
838 Busse Highway
Park Ridge, IL 60068
Phone: (312) 825-5536
3,700 members election May
**Pres:** James E. Steenbergen, Union Carbide Corp.
**Exec. Dir:** Maxine E. Hensley

**Assn. of Petroleum Re-Refiners**
2025 Pennsylvania Ave. NW
Suite 1111
Washington, DC 20006
Phone: (202) 833-2694
100 members election Fall 84
**Pres:** George T. Booth III, Booth Oil Co., Buffalo, NY
**Exec. Dir:** James A. McBain Jr.

**Independent Lubricant Manufacturers Assn.**
1055 Thomas Jefferson St. NW #302
Washington, DC 20007
Phone: (202) 337-3470
210 members election Oct. 84
**Pres:** Stephen McCollister, McCollister & Co., Council Bluffs, IA 51502
**Exec. Secy:** Nancy DeMarco

**National Lubricating Grease Institute**
4635 Wyandotte St.
Kansas City, MO 64112
Phone: (816) 931-9480
217 members election Oct. 84
**Pres:** T. S. Quigg, Union Oil Co. of Calif., Schaumburg, IL 60196
**Exec. Dir:** R. W. [illegible], Southwest Petrochem

## RETAIL

**National Assn. of Truck Stop Operators**
1199 N. Fairfax St., Suite 801
Alexandria, VA 22314-1492
Phone: (703) 549-2100
1,000 members election July 84
**Chmn:** Jack Cardwell, El Paso, TX
**Pres:** Ronald L. Ziegler

**Service Station Dealers of America**
2021 K St. N.W., Suite 303
Washington, DC 20006
Phone: (202) 293-6868
45 affiliated state associations
election 1984
**Pres:** Don Skilling, California Service Station Assn., Petaluma, CA 94950
**Exec. Dir:** Vic Rasheed

**Assn. of Retail Marketing Services (Formerly Trading Stamp Institute of America)**
412 Ocean Ave
Sea Bright, NJ 07760
Phone: (201) 842-5070
250 members election Sept. 84
**Pres:** William S. Karstens, Affiliated Mercantile, Amarillo, TX
**Exec. Dir:** George Meredith

## TBA/CAR SERVICE

**Automotive Exhaust Systems Mfrs. Council**
222 Cedar Lane
Teaneck, NJ 07666
Phone: (201) 836-9500
5 members
**Pres:** Edward Svoboda, Midas International
**Exec. Dir:** Ralph W. Van Demark

**Automotive Information Council**
28333 Telegraph Rd., Suite 403
Southfield, MI 48034
Phone: (313) 559-5922
625 members election Dec. 84
**Pres.** Richard C. Stankey

**Automotive Market Research Council**
222 Cedar Lane
Teaneck, NJ 07666
Phone: (201) 836-9500
90 members election March
**Pres:** J. C. McCourt, Union Carbide Corp.
**Exec. VP:** Hugh Sloan

**Automotive Parts & Accessories Assn.**
5100 Forbes Road, Lanham, MD 20706
**Chmn:** P. H. Noznesky, General Battery Corp., Reading, PA
**Pres:** Julian C. Morris

**Automotive Parts Mfrs. Assn. of Canada**
55 York St., Suite 402
Toronto, Ont., Canada M5J1R7
Phone: (416) 366-9673
350 members election April
**Pres.** P. J. Lavelle

**Automotive Service Industry Assn.**
444 N. Michigan Ave
Chicago, IL 60611
Phone: (312) 836-1300
8,500 members election Feb
**Chmn:** James Fournier, VP Mktg., Maremont Corp.
**Chief Staff Officer:** J. W. Neininger

**Automotive Warehouse Distributors Assn.**
9140 Ward Parkway
Kansas City, MO 64114
Phone: (816) 444-3500
716 members
**Pres.** Martin Fromm
**Exec. VP:** Louis A. Zuanich

**Battery Council International**
111 East Wacker Dr.
Chicago, IL 60601
Phone: (312) 644-6610
315 members election April
**Pres.** Ed Taylor, Daniel Battery, Baton Rouge, LA
**Exec. Sec.** William W. Carpenter

**Brake System Parts Manufacturers Council**
222 Cedar Lane
Teaneck, NJ 07666
Phone: (201) 836-9500
20 members election March
**Chmn:** James Lyle, International Brake Industries
**Exec. Dir:** Ralph Van Demark

**Independent Battery Manufacturers Assn.**
100 Larchwood Dr.
Largo, FL 33540
Phone: (813) 586-1409
291 members
**Chmn:** Gordon W. Mixon Jr., Mixon Inc., St. Paul, MN

**International Oil Industry TBA Group**
P.O. Box 2463
R. L. Myrick
Houston, TX 77001
Phone: (713) 241-2926
300 members election Oct. 84
**Chmn:** Robert L. Myrick
P.O. Box 2463
Shell Oil Co.
Houston, TX 77001

**Motor & Equipment Manufacturers Assn.**
222 Cedar Lane
Teaneck, NJ 07666
Phone: (201) 836-9500
750 members election Mar.
**Chmn:** George A. Poe, TRW Inc., Cleveland, OH
**Pres:** W. A. Raftery

**National Automotive Parts Assn.**
Parklane Towers W., Suite 1129
Dearborn, MI 48126
Phone: (313) 336-8200

**National Automotive Radiator Service Assn.**
P.O. Box 267
Harleysville, PA 19438
Phone: (215) 256-4246
1100 members election July
**Pres:** Ronald Mallack, City Auto Radiator, Trenton, NJ
**Exec. VP:** Douglas Verney

**National Tire Dealers & Retreaders Assn., Inc.**
1250 I St. NW, Suite 400
Washington, DC 20005
Phone: (202) 789-2300
5,000 members election Sept. 84
**Pres:** Jim F. Hughes, Hughes Tire Distrib., Asheville, NC 28801
**Exec. VP:** Philip P. Friedlander, Jr.

**Tune-Up Manufacturers Institute**
222 Cedar Lane
Teaneck, NJ 07666
Phone: (201) 836-9500
16 members election Feb
**Pres:** David Trickey, TRW Automotive
**Exec. Dir.** Ralph W. Van Demark

## TRUCKING

**American Trucking Assns.**
1616 P St., N.W.
Washington, DC 20036
Phone: (202) 797-5000
election Oct. 84
**Chmn:** Ernest S. Cox, Moss Trucking Co., 3027 N. Tryon St., Charlotte, NC 28221
**Pres.** Bennett C. Whitlock, Jr.

**National Tank Truck Carriers**
1616 P Street, N.W.
Washington, DC 20036
Phone: (202) 797-5425

**Private Truck Council of America**
1101 17th St., N.W., #310
Washington, DC 20036
Phone: (202) 785-4900

## OTHERS

**American Automobile Assn.**
8111 Gatehouse Rd.
Falls Church, VA 22047
Phone: (703) 222-6000
24 million members election May 85
**Pres.** James B. Creal
**Mng. Dir. PA** Richard E. Hebert

**American Independent Refiners Assn.**
114 3rd St., S.E.
Washington, D.C. 20003
Phone: (202) 543-8811
50 members
**Pres:** Andrew E. Hill, Hill Petroleum, Houston, TX
**Exec. Dir:** Ray F. Bragg Jr.

**American Petroleum Credit Assn.**
City Place, Suite 600
730 Hennepin Ave. So.
Minneapolis, MN 55403
Phone: (612) 338-7331
400 members election Oct.
**Pres:** Carl H. Hines, Gulf Oil Products Co.
**Exec. Sec.:** S. J. Haider

**American Petroleum Refiners Assn. (Merged into American Independent Refiners Assn.)**

**American Society for Testing & Materials**
1916 Race St.
Philadelphia, PA 19103
Phone: (215) 299-5400
29,000 members election Jan.
**Chmn:** Paul L. Strigner, Nat'l Research Council of Canada Fuels & Lubricants Dir.

**Assn. of Oil Pipe Lines**
1725 K St., N.W., Suite 1205
Washington, DC 20006
Phone: (202) 331-8228

**Canadian Petroleum Assn.**
1500, 633 Sixth Ave., S.W.
Calgary, Alta. T2P 2Y5
Phone: (403) 269-6721

**Diesel Engine Manufacturers Assn.**
712 Lakewood Center North
14600 Detroit Avenue
Cleveland, OH 44107
Phone: (216) 226-7700

**Highway Users Federation**
1776 Massachusetts Ave., NW
Washington, DC 20036
Phone: (202) 857-1200

**Independent Fuel Terminal Operators Assn.**
1700 Pennsylvania Ave., N.W.
Suite 300
Washington, DC 20006
Phone: (202) 637-9060
17 members election Oct. 84
**Pres:** L. P. Steuart II, Steuart Petroleum Co., Washington, DC
**Gen. Council:** John H. Zentay

**Independent Liquid Terminals Assn.**
1133 15th St. N.W., Suite 204
Washington, DC 20005
Phone: (202) 659-2301
election Nov. 84
**Pres:** John Prokop
**Dir. of Admin.** E. Bruce Calvert

**Independent Petroleum Assn. of America**
1101 16th St. N.W.
Washington, DC 20036
Phone: (202) 857-4700
9,500 members election Fall 84
**Chmn.** Jon Rex Jones, Jones Exploration, Houston, TX 77002
**Exec. VP:** Lloyd N. Unsell

**Independent Refiners Assn. of America (Merged into American Independent Refiners Assn.)**

**Mid-Continent Oil & Gas Assn.**
711 Adams Office Bldg.
Tulsa, OK 74103
Phone: (918) 582-5166
7,600 members election Feb. 85
**Pres.** Wayne Gibbens, 1800 K St. N.W., Washington, DC 20006

**National Assn. of Convenience Stores**
5201 Leesburg Pike, Suite 809
Falls Church, VA 22041
Phone: (703) 578-1800
950 Retail, 700 Associate members
election Sept. 84
**Pres.** Kerley LeBoeuf
**Chmn.** George Miller, Miller Enterprises, Crescent, FL 32012

**National Petroleum Council**
1625 K St., N.W.
Washington, DC 20006
Phone: (202) 393-6100

**National Fire Protection Assn.**
Batterymarch Park
Quincy, MA 02669
Phone: (617) 770-3000
32,000 members election May
**Pres:** Robert W. Grant

**National Petroleum Refiners Assn.**
1899 L St., N.W.
Washington, DC 20036
Phone: (202) 457-0480
300 members election Mar.
**Chmn:** Mark E. Houser, Texas City Refining, Inc., Texas City, TX
**Pres:** Urvan Sternfels

**National Assn. of Tax Administrators**
444 North Capitol St., NW, Suite 334
Washington, DC 20001
Phone: (202) 624-5890
50 states election June 84
**Pres:** R. L. Halperin, State Tax Assessor, Bureau of Taxation, Augusta, ME 04333
**Exec. Sec:** Leon Rothenberg

**Recreation Vehicle Industry Assn.**
P.O. Box 204
Chantilly, VA 22021
Phone: (703) 968-7722
444 members election Sept. 84
**Chmn:** Norman Jacobsen, Contempo Enterprises
**Pres. & Gen. Counsel:** David Humphreys

**Society of Automotive Engineers**
400 Commonwealth Dr.
Warrendale, PA 15096
Phone: (412) 776-4841
40,000 members election Feb. 85

**Western Oil and Gas Assn.**
727 W. Seventh St., Suite 850
Los Angeles, CA 90017
Phone: (213) 627-4866
92 members election Dec.
**Pres:** T. E. Innocenzi, Shell Oil Co., Carson, CA 90749
**VP & Gen. Mgr:** Arthur O. Spaulding

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■ **Attention Association Executives:** If your association is not currently listed, and you want to be included in the 1985 edition of the *Factbook*, write to Factbook Editor Association Listing, 950 Lee Street, Des Plaines, IL 60016

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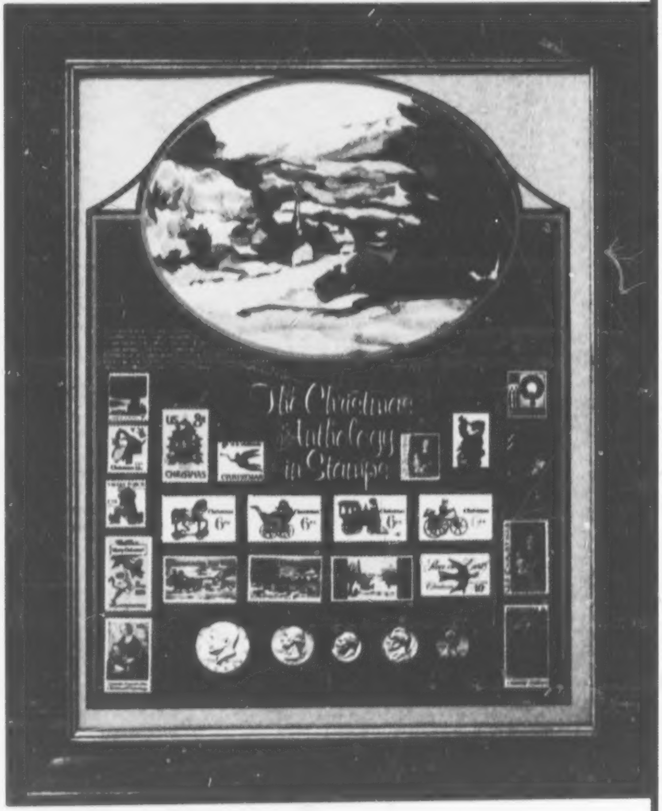
# THE CHRISTMAS ANTHOLOGY!

**A Christmas gift that will be remembered and cherished for many years to come! A unique gift for friends and relatives . . . both young and old alike! A beautiful collection to add to your home or office holiday decorations!**

The spirit and excitement of Christmas is captured in authentic U. S. stamps of the past and genuine U. S. coins of the present. A special collection that will be displayed proudly by all who receive one!

**Twenty-one authentic, uncirculated Christmas stamps** specially commissioned by the United States Post Office to commemorate the holiday seasons. The first of these special stamps appeared in 1962, and have been issued at a rate of at least one per year since that time. In 1966, the first religious theme, a detail of *"Madonna and Child With Angels"* by Hans Memling, was issued. In later years, the Post Office released other religious themes by Raphael, Van Eyck and Ghirlandaio. Included in this display of uncanceled Christmas Stamps is the first issue in 1962, *"Currier and Ives"* winter scenes, stamps that display the toys of yesteryear and several religious theme issues. **All stamps are guaranteed to be authentic issues of the United States Post Office.**

**The present is represented with a Brilliant Uncirculated U. S. Mint Set.** Each current year Mint Set contains a clad Kennedy Half Dollar; a clad Washington Quarter; a clad Roosevelt Dime; a Jefferson Nickel and a copper-plated, zinc Lincoln Cent. **All coins in this display are guaranteed to be genuine issues of the United States Mint.** Each ready-to-hang collection is assembled in a 13" x 16" walnut-finished, solid wood frame with a protective, clear plexiglass shield.



**Your satisfaction is guaranteed** . . . if you are not completely satisfied with your collection(s), you may return the original, undamaged collection(s) within 30 days for a prompt refund, less postage.

**Order now to avoid the Christmas rush!** Shop from the convenience of your home or office and save with our Christmas savings prices . . .

| NO. OF SETS | PRICE EACH | POSTAGE |
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| 1 — 3 | $ 34.50 | $ 2.00 each |
| 4 — 6 | $ 32.50 | $ 5.00 total |
| 7 — 10 | $ 30.00 | $ 8.00 total |

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**EXECUTIVE GIFT GUILD • P. O. BOX 5050 • DES PLAINES, IL 60016**
**(in cooperation with The Kennedy Mint, Inc.)**
**FB 84**

Please send _____ set(s) of the *"Christmas Anthology"* according to the prices listed below and my payment information shown at left.

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|---|---|---|
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| 4 — 6 | $ 32.50 | $ 5.00 total |
| 7 — 10 | $ 30.00 | $ 8.00 total |

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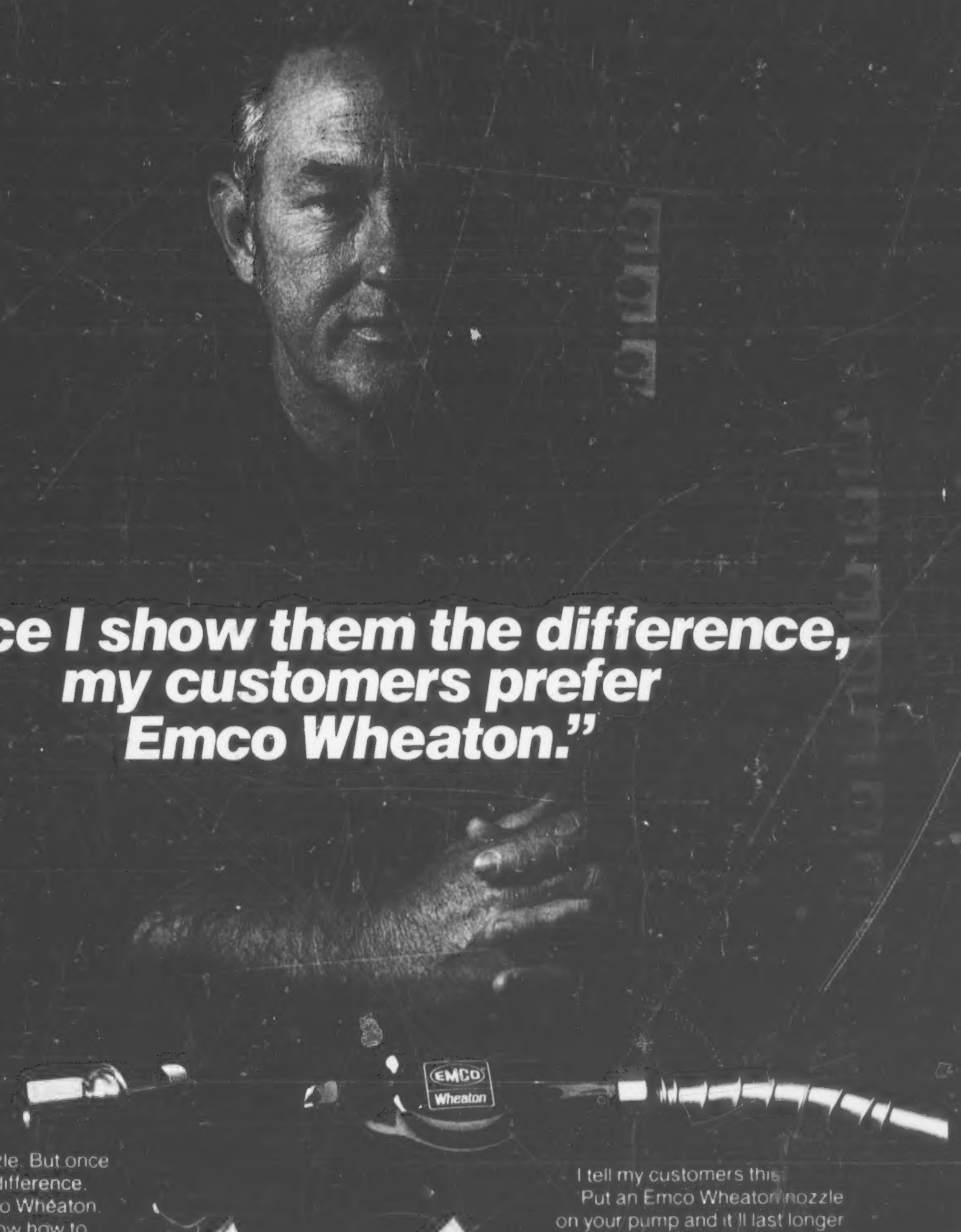
7



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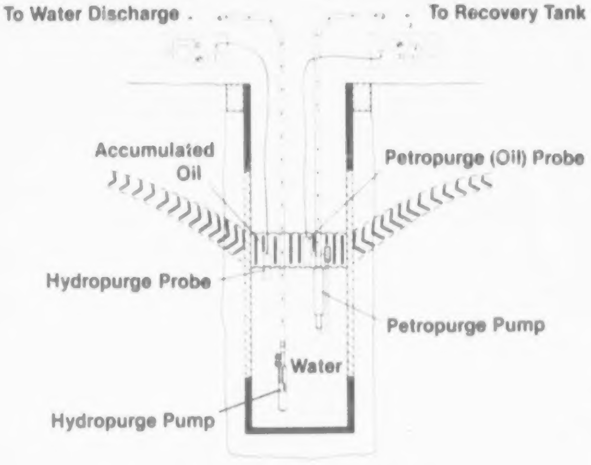

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1. No purchase necessary. Complete official entry form per instructions. Winner will be selected in random drawings from among all eligible entries received. Prize not transferable. No substitution on the prize except as required by availability. Travel dates are subject to space and departure availability. Travel must be completed by 6/30/85.

2. Sweepstakes open only to employees of recognized advertising agencies or companies using advertising and promotion to market their merchandise or services, except employees and their families of Ventura Associates, Inc. All federal, state and local laws and regulations apply. To be eligible entries must be received by 11/30/84. Odds of winning are determined by total number of qualified entries received.

3. Winner will be notified by mail and will be obligated to sign and return an Affidavit of Eligibility within twenty-one days of date on notification. Winner agrees to the use of his or her name and likeness for publicity. Taxes are the responsibility of the winner. To receive the name of the Grand Prize winner, send a stamped, self addressed envelope to: **Paradise Sweepstakes Winner, c/o Ventura Associates, Inc., 210 Madison Avenue, New York, NY 10016.**

Mail your entry to
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c/o Ventura Associates, Inc., 210 Madison Avenue, New York, NY 10016

Name ____________________

Company ____________________

Company Address ____________________

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Title/Assignment ____________________

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☐ I believe that sweepstakes can be a valuable marketing tool for me.
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NPN

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**Div. of Adams Resources & Energy**
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**Houston, TX 77001**
**Phone: (713) 644-2111**
Key: TM-Phillips; G, F, D, L
Subs: Buddy's Stores, Kirbyville Marketing Co.
K. S. Adams, Jr., Chmn.
Spencer Murchison, Pres.
C. G. Sones, Exec. VP
E. H. Laws, VP Mktg.
J. L. Parks, Mgr. Wholesale Sales
Allan Koerth, Mgr., Retail Sls.
David Clark, Credit Mgr.
John Singer, Mgr. Acct.
Lee Beachamp, Mgr. Products & Pricing

**Brazosport Area Sls. Off.**
**Highway 35**
**Old Ocean, TX**
Bob Kurz, Dist. Sls. Mgr.

**■AERO OIL CO.**
**230 Lincolnway East**
**New Oxford, PA 17350**
**Phone: (717) 624-4311**
Key: TM-Phillips; G, F, D, L
N. T. Washburn, Pres.
Vance T. Ward, VP
E. G. Higinbotham, VP

**■AGWAY PETROLEUM CORP.**
**P.O. Box 4852**
**Syracuse, NY 13221**
**Phone: (315) 477-6478**
Key: T-R-M; G, D, F, LPG, L
Sub. of Agway Inc.
Sub: Texas City Ref., Inc.
Robert J. Kutil, Pres.
Ralph D. Fuller, VP Supply & Purch.
Jack Williard, VP Marketing & Distrib.
W. F. Meckling, Whlsl. Sls. Mgr.
C. Caffarelly, Dir. of Sls.
S. B. Burnett, Dir. Mktg.
George Puzey, Mktg. planning Mgr.
K. M. Williams, Mktg. Comm. Mg

**Eastern Div.**
**West Springfield, MA**
Jack L. Babb, Mgr.

**Northern Div.**
**Syracuse, NY**
Daniel L. Goble, Mgr.

**Southern Div.**
**Harrisburg, PA**
Stanley F. Dudzinski, Mgr.

**Texas City Refining**
**P.O. Box 1271**
**Texas City, TX 77590**
**Phone: (713) 945-4451**
Sub. of Agway Petroleum (66-2/3) and Southern States Co-op (33-1/3)
Sub: TCR, Inc. (formerly Rebel Oil Co.)
Key: I; G, Fw, LPGw, D
Mark E. Houser, Pres.
J. L. Stratman, Sr. VP
W. B. Uhlhorn, Sls. Mgr.
S. B. Burnett, Asst. Sls. Mgr.
C. J. Schmitz, Mgr. Prod. Sup. & Distrib.
E. C. Nicar, Mgr. Prod. Sup.
J. B. McDonald, VP Finances

### KEY

| | |
|---|---|
| I | Integrated |
| T | Transporter |
| R-M | Refiner-marketer |
| M | Marketer |
| G | Gasoline wholesale/retail |
| F | Fuel Oil wholesale/retail |
| D | Diesel wholesale/retail |
| LPG | Liquefied petroleum gas wholesale/retail |
| L | Lubricants wholesale/retail |
| w | wholesale only |
| r | retail only |

**■ALLIED MATERIALS CORP.**
**Box 12340**
**Oklahoma City, OK 73157**
**Phone: (405) 842-4403**
Key: R; D, F, LPGw, Lw
Sub of Entex Inc., Houston, Tex.
T. D. Barbour, Pres. & CEO
Patsy King, Gen. Sls. Mgr.
Patsy King, Adv. Mgr.
George Drake, Gen. Mgr. Ref. Div.
Sam Leake, Lubricant Sales
Don Jackson, Asphalt Sales
Bob Carter, Solvent Sales

**■AMERADA HESS CORP.**
**1185 Ave. of the Americas**
**New York, NY 10036**
**Phone: (212) 997-8500**
Key: I; G, F, LPGw, L
Leon Hess, Chmn.
Philip Kramer, Pres. & CEO
H. W. McCollum, Chmn.-Fin. Comm.
Bernard T. Deverin, Exec. VP
L. J. Lambros, Exec. VP
R. F. Wright, Exec. VP
A. T. Jacobson, Group VP
Peter A. Dysert, Sr. VP
Neal Gelfand, Sr. VP
Norman Goldberg, Sr. VP
John B. Hess, Sr. VP
W. R. Jameson, Sr. VP
C. H. Norz, Sr. VP
R. K. Stafford, Sr. VP-Fin. & Controller
J. O. Trotter, Sr. VP
Nathan K. Trynin, Sr. VP
William R. Zimmerman, Sr. VP
G. A. Jamin, Treas.
A. T. Aitkens, VP
Nicholas D. Bernard, VP
Alan A. Bernstein, VP
M. B. Bianchi, VP
Thomas A. Bowman, VP & Auditor
Arthur R. Broadman, VP
J. F. Cassidy, VP
F. L. Clark, VP
T. A. Collins, VP
J. F. Connors, VP
D. W. Cook, VP
George F. Dewhurst, VP
John J. Duggan, VP
Charles J. Dunn, VP
Joseph R. Enloe Jr., VP
Joseph P. Gehegan, VP
Val M. Hebertson, VP
Louis Horvath, VP
W. T. Howard, VP
John J. Koval, VP
Donald Laing Jr., VP
W. S. H. Laidlaw, VP
Philip J. Mazzilli, VP
Robert McReynolds, VP
Seymour R. Miller, VP
B. J. O'Bryan, VP
Robert P. Powers, VP
V. J. Rifici, VP
Rene L. Sagebien, VP
R. L. Smernoff, VP
John Steed, VP
D. G. Stevenson, VP
L. A. Stricklin, VP
Carl T. Tursi, VP and Sec.
Harry F. Warnke, VP
Andrew Zizinia, VP

**Patchogue Oil Terminal Corp.**
**722 Court St.**
**Brooklyn, NY 11231**
**Phone: (212) 875-0797**
Key: M; Fw, Dw
Sub: J. P. Leonard Fuel Oil Co.
F. B. Bushey, CEO
Arthur I. Soule, Pres.
G. J. Bushey, Supply & Distrib.

**■AMERICAN OIL & SUPPLY CO.**
**An Aosi Company**
**238 Wilson Ave.**
**Newark, NJ 07105**
**Phone: (201) 589-0250**
Subs: Fairfield American Corp.
Frenchtown American Corp.
Timothy Driscoll, CEO
Edwin Roth, Dir. Mktg.
Nathan Lafer, Sls. Mgr.
Glenn Boyle, Prod. Mgr.
Charles Sharo, Mgr. - Sls. Mktg. Admin.

**■AMERICAN PETROFINA**
**P.O. Box 2159**
**Dallas, Texas 75221**
**Phone: (214) 750-2400**
Key: I; Gw, Fw, LPGw, Lw, Dw
Sub. of Petrofina, S. A. (72%)
Subs: American Petrofina Marketing Inc.
FinaServe, Inc.
Porto Fina Oil Co.
R. I. Galland, Chmn.
P. D. Meek, Pres.
R. C. Low, VP Mktg.
J. L. Thomas, Gen. Mgr., Distrib. Sls.
R. E. Piner, Asst. Mgr., Distrib. Sls., Southeast Area
D. W. Randolph, Asst. Mgr., Distrib. Sls., Southwest Area
H. G. Johnson, Market Analyst
J. L. Rudaseal, Gen. Mgr., Lube & TBA
F. N. Cox, Lube Oil Sls. Mgr.
J. R. Solomon, TBA Sls. Mgr.
J. W. Boyd, Gen. Mgr., Mktg. Opns.
J. W. Cahill, Jr., Dir., PR
M. J. Couch, Gen. Mgr., Supply & Trans.
C. B. Crow, Jr., Mgr., Prod. Supply
J. D. Howell, Gen. Mgr., Ref. Sls.
B. L. Martin, Mgr., Wholesale Credit

**Southwest Area**
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**P.O. Box 3886**
C. S. Williams, Mgr.

**Dallas, TX, District**
**1186 W. Pioneer Pkwy.**
**(Arlington, TX)**
S. L. Mullins, Mgr.

**San Antonio, TX, District**
**8626 Tesoro Drive**
J. M. Schrampfer, Mgr.

**Southeast Area**
**Memphis, TN, District**
**3171 Directors Row**
W. W. Malphrus, Mgr.

Atlanta, GA, District
2970 Parrott Ave., N.W.
J. E. Payne, Mgr.

**Tampa, FL, District**
**P.O. Box 75285**
K. W. Harmon, Mgr.

**■AMERICAN PETROLEUM DEVELOPERS**
**319 Ulysses St., NE**
**Minneapolis, MN 55413**
**Phone: (612) 331-9344**
Key: M; Gr
Robert Mack, Pres.
Charles Mack, VP

**■AMOCO OIL CO.**—listed under Standard Oil Co. (Indiana)

**■AMOS POST, INC.**
Absorbed by Kingston Oil Supply Corp., Port Ewen, NY

**■ANCHOR GASOLINE CORP.**
**114 E. 5th St.**
**Tulsa, OK 74103**
**(918) 584-5291**
Key: R-M; O, Gw, Dw
Subs: Canal Refining Co.
Anchor Coal Co.
Cove Petroleum Corp.
Bay Petroleum Corp.
Clear Creek Coal Co., Inc.
Joe R. Wright, Pres.
B. A. Mockley, Exec. VP
E. W. Clopton, VP
C. R. Dupre, VP

**■APEX OIL CO.**
**7930 Clayton Rd**
**Richmond Hts., MO 63117**
**Phone: (314) 889-9600**
Key: I; G, F, D, LPG, L
Sub: Clark Oil & Refining Co.
Apex Towing Co.
Goldstein Oil Co.
Novelly Oil Co.
Samuel R. Goldstein, Chmn.
P. A. Novelly, Pres.
Karen Burns, Dir. PR

**Clark Oil & Refining Corp.**
**8530 W. Natural Ave.**
**Milwaukee, WI 53227**
**Phone: (414) 321-5100**
R. G. Reed, III, Pres. & CEO
J. H. Baumgartner, Exec. VP
J. R. Musha, VP Retail Mktg.
T. G. Henning, Gen. Sls. Mgr.

**■APOLLO OIL CO.**—Sold to Beacon Oil Co. in Feb. '83)

**■ARKLA CHEMICAL CORP.**
**P.O. Box 21734**
**Shreveport, LA 71151**
**Phone: (318) 226-2813**
Key: M; G, Fr, D, L
Sub. of Arkla, Inc.
Sheffield Nelson, Pres.
B. E. Harrell, Exec. VP
George Papageorge, Sr. VP
Charles Wilbanks, Gen. Sls. Mgr.
Robert Butcher, Adv. Mgr.

**■ARLEX OIL CORP.**
**275 Massachusetts Ave.**
**Lexington, MA 02173**
**Phone: (617) 862-3400**
Key: M; Fr
John Maloney, Pres.
Wm. Maloney, VP
David F. Eagle, VP

**■ARMOUR OIL CO.**
**P.O. Box 85302**
**San Diego, CA 92138**
**Phone: (619) 291-1000**
Key: T, M; G-Gas-N-Save, M23, D, F-M23, L
O. B. Armour, Pres.-CEO
L. M. Armour, Exec. VP
H. O. Armour, VP Mktg.

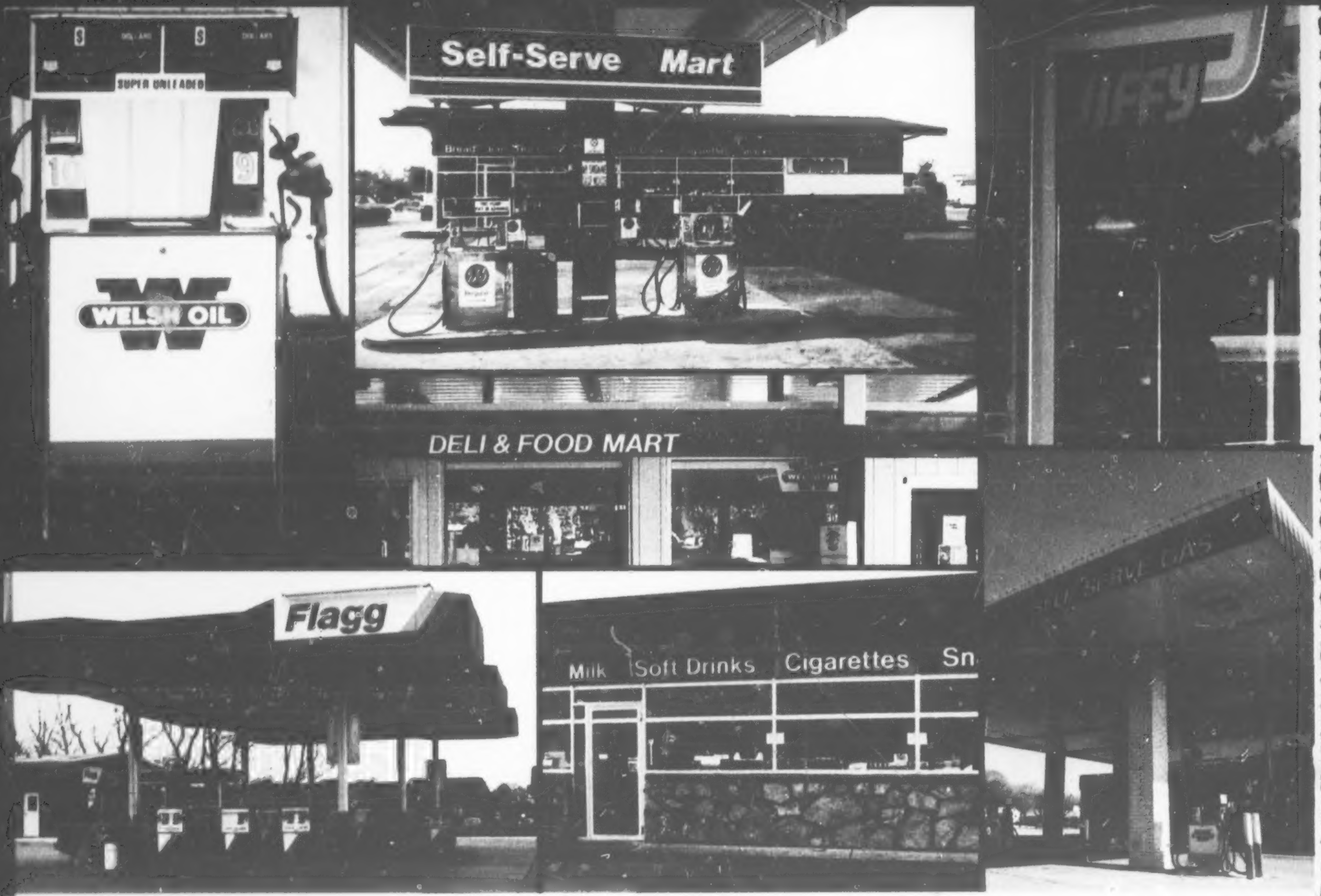
**■ASHLAND OIL, INC.**
**P.O. Box 391**
**Ashland, KY 41114**
**Phone: (606) 329-3333**
Key: I; G, D, F, LPGw, Lw
J. R. Hall, Chmn. and CEO
W. R. Seaton, Vice Chmn., Fin.
R. T. McCowan, Vice Chmn., Ex. Aff.
P. W. Chellgren, Sr. VP and Group Oper. Officer
W. C. Voss, Sr. VP, Group Oper. Officer
C. J. Luellen, Sr. VP and Group Oper. Officer and Pres.
R. W. Spears, Sr. VP and Group Oper. Officer

**ASHLAND PETROLEUM CO.**
**P.O. Box 391**
**Ashland, KY 41114**
**Phone: (606) 329-3333**
Key: I; G, D, F, LPGw, Lw
C. J. Luellen, Pres.
R. E. Yancey Jr., Sr. VP Manuf., Crude Supply and Trans.

**Light Products Marketing Group**
J. E. Fout, VP, Light Oil Prod.
C. R. Lovorn, VP, Ref. Sls.
J. W. Moren, Mgr. Trans. Fuels
G. L. Hess, Div. Mgr., Atlanta
J. C. Snyder, Div. Mgr., Baltimore
D. R. Davis, Div. Mgr., Cincinnati
H. T. Thompson, Div. Mgr., Chicago
L. H. Dunbar, Reg. Mgr., Cincinnati
R. C. McGrew, Div. Mgr., St. Paul Park

**Retail Marketing Group**
R. A. Jensen, VP and Pres. of SuperAmerica Stores Div.
R. C. Ball, Admin. Mgr.
G. K. Townsend, VP SuperAmerica Oper.
J. F. Pettus, VP Save Mart Div.

**Supply and Transportation**
S. S. Watson, Group VP Supply and Transp. Asphalt and Industrial Products
D. J. Stender, VP Supply and Distrib.
R. H. Chatfield Jr., VP Asphalt Mktg.



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NPN 6-84
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**MARKETING MANAGER**
**WHITE GRAPHIC SYSTEMS**
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**MERRILLVILLE, IN 46411**

170

■**ASTROLINE CORPORATION**
**(Formerly Gibbs Oil Co.)**
**855 Broadway**
**Saugus, MA 01906**
**Phone: (617) 231-1400**
Key: M: Gw, Dw, Fw, LPGw, Lw
Herbert A. Sostek, Chmn. of the Board
Fred J. Boling Jr., Pres.
Joel A. Gibbs, VP
Richard H. Gibbs, VP
Kenneth B. Monahan, VP
Edward I. Shub, VP
Richard J. Sullivan, VP
Stephen D. Oppenheim, VP

**Gibbs Oil Company of Texas, Inc.**
**7600 West Tidwell—Suite 302**
**Houston, Texas 77040**
**Phone: (713) 690-4256**
John B. Kane, Exec. VP
E. C. Hancock, Sr. VP
Victor Brossett, VP
Stephen Berger, VP

**ASTROLINE PACIFIC, INC.**
**Phone: (213) 437-8997**
Gerald Smith, VP

■**ATLANTIC RICHFIELD CO.**
**515 South Flower St.**
**Los Angeles, CA 90071**
**Phone: (213) 486-3511**
Key: I, G, F, LPG, L
Subs: Buckley & Scott Co.
Griffith Consumer Co.
Major Petroleum Co.
Rossoe, Inc.
Prestige Stations, Inc.
Robert O. Anderson, Chmn.
W. F. Kieschnick, Pres. & CEO

**ARCO Petroleum Products Co.**
**(Los Angeles Headquarters)**
**Division of Atlantic Richfield Co.**
**515 South Flower**
**Los Angeles, CA 90071**
J. S. Morrison, Pres.
G. H. Babikian, Sr. VP Mktg.
E. G. Reilly, Retail Mktg. VP
J. J. Conway, IC&D Mktg. VP
S. Stanworth, Distribution VP
S. L. McDonald, Mktg. Svcs. Mgr.
R. M. Fidler, TBA Mktg. Mgr.
W. J. Craig, Coord., Retail
R. Ise, Ind. Prod. Mktg. Mgr.
T. D. Wilson, Coord. IC&D
J. C. McDermott, New Mktg. Tech. Mgr.
W. C. Morrow, Distrib. Opns. Mgr.
J. E. Noon, Distrib. Svcs. Mgr.
M. E. Fitzpatrick, Aviation, Coke & Military Sales, Mgr.
P. T. Greer, Nat'l Credit Mgr.
H. G. Johnson, Vol. Plng. & Anl. Mgr.
J. J. Tebo, Sls. Development Mgr.

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**1500 Market Street-Centre Sq.**
**Philadelphia, PA 19101**
W. M. Rennick, Mgr.

**Syracuse Region (Retail)**
**1019 James Street**
**Syracuse, NY**
W. J. Donovan, Mgr.

**San Francisco Region (Retail)**
**2000 Alameda De Las Pulgas**
**San Mateo, CA 94403**
J. D. Kowal, Mgr.

**Los Angeles Region (Retail)**
**300 W. Glenoaks Boulevard**
**Glendale, CA 91202**
T. R. Murphy, Mgr.

**Eastern Zone (C & D)**
**1500 Market Street-Centre Sq.**
**Philadelphia, PA 19101**
M. C. Balliet, Mgr.

**Pacific Zone (C & D)**
**2000 Alameda De Las Pulgas**
**San Mateo, CA 94403**
L. D. Murphy, Mgr.

**Retail Heating Oil and Asphalt Mktg**
**2700 Passyunk Avenue**
**Philadelphia, PA 19145**
R. L. Machon, Mgr.

**Field Distrib. Area—East**
**1500 Market Street-Centre Sq.**
**Philadelphia, PA 19101**
A. Leone, Mgr.

**Field Distrib. Area—West**
**2000 Alameda De Las Pulgas**
**San Mateo, CA 94403**
L. S. Morken, Mgr.

**Natural Gas Liquids Performance Center**
**8222 Douglas Avenue**
**Dallas, TX 75225**
**P.O. Box 68**
**Dallas, TX 75221**
R. D. Shelton, Mgr.

■**ATLAS OIL CO. OF UTICA**
**Riverside Drive**
**P.O. Box 252**
**Marcy, NY 13403**
**Phone: (315) 724-7431**
Key: T, M: G, D, F
Ronald J. Casatelli, Pres.
Peter J. Casatelli, Mktg. VP

■**THE AUGSBURY ORGANIZATION**
**100 Lafayette Street**
**P.O. Box 408**
**Ogdensburg, NY 13669**
**Phone: (315) 393-6600; 6601**
Sub: The Augsbury Corporation
Frank A. Augsbury, Jr., Chmn.
Leonard Braun, Pres. & CEO
Charles J. Bullard, Director, Mktg.

**The Augsbury Corporation**
**St. Lawrence County Division**
**520 Riverside Avenue**
**P.O. Box 240**
**Ogdensburg, NY 13669**
**Phone: (315) 393-6300**
Key: T, M: G-Chevron, Getty, Mobil, Citgo; D, F-Augsbury, L
Boyd E. Foster, VP Finance
Glenn R. Allen, Mgr., Corp. Relations
Joseph A. McCarthy, Mgr., Opns.
Lewis W. Manns, Mgr., Supply & Distrib.

**Jefferson County Division**
**P.O. Box 281**
**Watertown, NY 13601**
**Phone: (315) 788-8740**
Richard Burns, Mgr., Jefferson County Retail
Larry P. Fioretto, Assistant Director, Retail Gasoline

**Plattsburgh Division**
**Lakeshore Road**
**Plattsburgh, NY 12901**
**Phone: (518) 561-4670**
Ed Boyer, NENY Mgr., Opns. Mktg.

**Vermont Division**
**P.O. Box 982**
**Burlington, VT 05401**
**Phone: (802) 862-9754**
Marshall D. Holzer, Director, Heating Oil

■**AUTOMATIC COMFORT, CORP.**
**P.O. Box 777**
**Hartford, CT 06142-0777**
**Phone: (203) 568-1200**
Key: M: G-Citgo, Texaco, Sunoco, Mobil; G, D, F-Automatic Comfort, L
Subs: Oil Comfort, Inc.
Gerber Oil Co.
Petroleum Energy Corp.
A. C. Fuel Corp.
ZIP Corp.
Petro Pantry Corp.
Lewis S. Sheketoff, Pres. & CEO
Ira Kirschner, Treas., Asst. Secy.
Sidney O. Melius, VP Opns.
Dann S. Foster, VP Mktg. (Gas)
Conrad L. Dwire, Sls. Mgr. Mktg. (Gas)
David A. Duchesne, Data Proc. Mgr.
Leonard F. Schumann, Svc. Mgr.
A. M. Myers, RFO Sls. Mgr.

■**AVALON PETROLEUM CO.**
**16645 S. Crawford Ave.**
**Markham, IL 60426**
**Phone: (312) 333-3360**
Key: M: G, F, D, L
John Eckenstein, Pres. & CEO
Luke Matic, Gen. Mgr.

■**AYERS OIL CO.**
**4th & Grant Sts.**
**Canton, MO 63435**
**Phone: (314) 288-4466**
Key: M-Phillips & Kerr McGee: G, F, D, L
R. E. Ayers, Pres., Chmn.
J. W. Ayers, First VP
O. L. Tobin, VP Pet. Mktg. & TBA Mktg.
K. F. Bishoff, VP Finance
Stephen W. Ayers, Secy.
James Crane, Treas.

■**RICHARDSON AYRES**, Inc.
**(Name Changed To Petron, Inc.)**

■**BP CANADA**
**(Acquired by Petro-Canada on 3/1/83)**

■**BP OIL INC.**, See Standard Oil Co. (Ohio)

■**BAGWELL OIL CO.**
**33 Market St.**
**Onancuck, VA 23417**
**Phone: (804) 787-3580**
Key: T-M-Union: G, D, F, L
Subs: Fulcher & Martin, Cape Charles, VA; Bagwell Terminal & Transport, Onancock, VA
I. W. Bagwell, 3rd, Pres.
I. W. Bagwell, 4th, VP & CEO

■**E. M. BAILEY DISTRIBUTING CO.**
**Box 2576**
**Paducah, KY 42001**
**Phone: (502) 442-4306**
Key: M-Chevron: G, D, F, L
E. M. Bailey Sr., Pres. CEO
E. M. Bailey Jr., Exec. VP
John P. Drew, VP Mktg.
Gary W. Robertson, Gen. Sls. Mgr.

■**BALLARD OIL & EQUIPMENT CO.**
**P.O. BOX 3898**
**135 Marginal Way**
**Portland, ME 04104**
**Phone: (207) 772-1991**
Key: M: G, D, L
Edward P. Hacker, Pres.
E. Thomas Hacker, Treas.
(Mrs.) Irene Stults, Credit Mgr.
Wm. Drake, Petroleum Prod. Sls. Mgr.
Randall Stearns, Equip. Sls. Mgr.
Manley Harriman, Oper. Mgr.

■**BATTENFIELD-AMERICAN, INC.**
**1575 Clinton St.**
**Buffalo, NY 14206**
Key: Mfg.: Lw
Nathan D. Rosen, Pres., Treas. & Chmn.
John A. Bellanti, Exec. VP

■**BATTENFELD GREASE & OIL CORP. OF NY**
**1174 Erie Ave.**
**P.O. Box 728**
**North Tonawanda, NY 14120**
**Phone: (716) 695-2100**
Key: Prod.-M-Mfg.: Lw
John A. Bellanti, Pres.
Paul P. Converso, VP Mktg.
Thomas G. Musilli, VP Tech. Svcs.

■**BEACON OIL CO.**
**525 W. Third St.**
**Hanford, CA 93245**
**Phone: (209) 582-0241**
Key: R-M: G, Fw, D, LPGw, L
Sub. of American Ultramar LTD.
V. L. Anderson, Chmn. of the Board
D. E. Bacigalupo, Pres.
R. S. Usher, General Counsel
W. A. Dwelle, Sr. VP Mktg.
J. Mascitelli, Sr. VP Supply Distrib. & Refining
L. M. Lockhart, VP Admin.
J. H. Leonard, VP Refining
R. J. Lowe, VP Whlsl. Mktg.
R. Nagy, VP Fiscal Svcs.
H. P. Smith, VP Finance
M. A. Montevecchi, Controller
J. Kitto, Dir. of Budgets & Financial Plng.
M. Covert, VP Crude Supply
W. E. Empey, Adv. Public Relations Mgr.
G. C. Gaither, Retail Sls. Mgr.
J. E. Sozinho, TBA Sls. Mgr.

■**BELCHER OIL CO.**, Listed under The Coastal Corp.

■**BELL FUELS CORP.**
**31st & Grays Ferry Ave.**
**Philadelphia, PA 19146**
**Phone: (215) 336-5000**

■**BEST OIL**
**2939 Saw Mill Run Blvd.**
**Pittsburgh, PA 15227**
**Phone: (412) 884-8777**
Key: M: Gr, Dr
Joseph J. McNally, Pres.
Harley W. Pratt, Exec. VP
Michael A. Martin, Mktg. VP

■**BI-RITE OIL CO.**
**500 Penn Center Blvd.**
**Pittsburgh, PA 15235**
**Phone: (412) 243-7550**
Key: M: G-Texaco, F-Texaco, L
J. Neil Scholl, Chief Executive Officer
Arthur J. Sciullo, Vice Chmn.
Joseph R. Sepesy, Exec. VP
Peg Bowser, Off. Mgr.
Ken Huselton, Marketing VP
Clyde Hanyak, Adv. Mgr.
H. J. Ruggiero & R. J. Steinmiller, Opns. Mgr's.

■**BORON OIL CO.**—Sub. of Standard Oil Co. (Ohio)

■**BOSWELL OIL CO.**
**2504 Central Trust Tower**
**Cincinnati, Ohio 45202**
**Phone: (513) 421-1200**
Key: M: Gw, Fw, Dw, Lw
Wm. P. Boswell, Chmn.
W. Luke Boswell, Pres.
C. D. Mayer, Sr. VP
R. P. Fedirka, Admin. VP

■**BRAY TERMINALS**
**River Road**
**Marcy, NY 13403**
**Phone: (518) 793-8828**
Key: T-M, G-Citgo; G, D, F, I
Subs: Bray Industries, Inc.
Buy Gasohol, Inc.; Petroleum / Action, Inc.
Dana S. Bray, Jr., Pres. & CEO
Larry N. King, VP, Controller
Lawrence A. LeLuca, Mktg. VP
Charles Newell, Opns. Mgr.
Virginia Cappola, VP, Supply & Distrib.

■**BRENNAN PETROLEUM**
**202 E. Southern Ave.**
**Mesa, AZ 85202**
**Phone: (602) 833-7261**
Key: M: Gr
Ted P. Brennan, Pres.
Tim Brennan, Exec. VP

■**BROADWAY PETROLEUM CORP.**—Sub. of Atlantic Richfield

■**BROWNING OIL CO.**
**Louisville Rd.**
**Bowling Green, KY 42101**
**Phone: (502) 782-2454**
Key: M-Shell: G, D, L
David Browning, Pres.

■**BUCKEYE PETRO FUELS CO.**
**4025 Pottsville Pike**
**Reading, PA 19605**
**(215) 929-9468**
Key: M: G, F, D, L
Sub. of Buckeye Fuels Co.
Subs: D. J. Witman Co.
Remington Oil Co.
Gilbert Bros., Johnston, PA
Service Oil of Somerset, PA
Oil Products of Pittsburgh
Agway of Washington, PA
R. E. Miller Oil Co., Palmyra, PA
Goshert Quality Fuels, Reading, PA
James Bertelsmeyer, Pres.
Jack Mirly, VP
Bob Lisk, Gen. Mgr.

■**BULK SALES CORP.**
**45 Rt. 206 South**
**Somerville, NJ 08876**
**Phone: (201) 722-[illegible]07**
Key: M: Gw, Fw, Dw
Mark Baldinger, Pres.
Paul Baldinger, CEO
Fred Umar, Sls. Mgr.

**KEY**

| | |
|---|---|
| I | Integrated |
| T | Transporter |
| R-M | Refiner-marketer |
| M | Marketer |
| G | Gasoline, wholesale, retail |
| F | Fuel Oil, wholesale, retail |
| D | Diesel, wholesale, retail |
| LPG | Liquefied petroleum gas wholesale, retail |
| L | Lubricants, wholesale, retail |
| w | wholesale only |
| r | retail only |

**■BURMAH-CASTROL, INC.**
**401 Hackensack Ave.**
**Hackensack, NJ 07601**
**Phone: (201) 488-1080**
Key: T, M, L
Sub. of Burmah Oil Co.
Martin J. Donahue, Pres.
Thomas R. Crane Jr., Exec. VP
R. Fenster, Dir. of Mktg.
J. Gardella, Gen. Sls. Mgr.

**Northeast Reg.**
**487 Edward H. Ross Dr.**
**Elywood Pk, NJ**
**(201) 797-5800**
Bob Celia, Northeast Reg. Mgr.

**Southeast Reg.**
**565 Henderson Rd.**
**Jacksonville, FL 32205**
**Phone: (904) 781-4661**
Ted Binns, Southeast Reg. Mgr.

**Midwest Reg.**
**6803 W. 64th St., Suite 226**
**Overland Park, KS 66202**
W. P. Holladay, Midwest Reg. Mgr.

**Western Reg.**
**12250 Industry St.**
**Bldg. 25**
**Garden Grove, CA 92641**
**Phone: (714) 891-2371**
Ron DeBartolomeis, Western Reg. Mgr.

**■BURSAW OIL CORP.**
**27 Cherry St.**
**Danvers, MA 01923**
**Phone: (617) 777-0700**
Key: M-Texaco, Amoco, G, D, Fr, L
Sub. Enon Enterprises, Inc.
Seacoast Petroleum, Inc.
Wm. J. Bursaw, Jr., Pres.
R. William Coletti, Gen. Sls. Mgr.

**■BY-LO OIL CO.**
**P. O. Box 771**
**Port Huron, MI 48060**
**Phone: (313) 982-1450**
Key: T-M, G, D, F, L
C. S. Lawrence, Pres. & CEO
Craig A. Lawrence, VP Finance
Charles U. Lawrence, Mktg. VP

**■BY-RITE OIL CO.**
**8125 Telegraph Rd.**
**Dearborn Hts, MI 48181**
**(313) 562-5520**
Key: M, G, D
N. G. Philpott, Pres.

**■C.S.C. OIL CO.**
**Div. of Cook United, Inc.**
**1407 West Jefferson St.**
**Louisville, KY 40203**
**Phone: (502) 589-5357**
Key: M; G, D, F
Richard Pouliot, Pres.
W. G. Shepard, Gen. Mgr.
Robert Incorvia, Controller
Robt. A. Williams, Southern Div. Mgr.
Stan Bobowicz, Northern Div. Mgr.
Billy Cravens, Maint. Supv.

**■CALUMET REFINING CO.**
**Div. of Calumet Industries**
**14000 Mackinaw**
**Chicago, IL 60633**
**Phone: (312) 928-4713**
Key: I; Dw, Fw, Lw
Mark S. Salvino, Pres.
Philip Campbell, Gen. Sls. Mgr.

**■CAMPBELL OIL CO.**
**P. O. Box 558**
**Massillon, OH 44648**
**Phone: (216) 833-8555**
Key: M, G-Shell, Sunoco, D, F-Sunoco, L
C. K. Campbell, Pres.
Jack E. Decker, Exec. VP
Dan Phillips, VP

**■CANNON OIL CORP.**
**P.O. Drawer 1850**
**Dothan, AL 36302**
**Phone: (205) 794-2776**
Key: T, R-M, G, D
Vernon L. Cannon, Pres. & CEO
Danny Grable, Gen. Sls. Mgr.
Joe Cannon, Mgr. Whlsl. Sls.
Bobby Joe Gamble, Trans. Mgr.
Glenda Williams, Sec.

**■CARBO INDUSTRIES**
**One Bay Blvd.**
**Lawrence, L. I., NY 11559**
**Phone: (516) 239-2500**
Key: M, F
Subs: Gibraltar Oil
Hempstead Utilities
Triboro Fuel Oil
Jacob Hochhauser, Bd. Chm.
Paul Hochhauser, Pres. & CEO
James Grimaldi, Mktg. Sls. Mgr.
David Ploth, Equip. Sls. Mgr.

**Gibraltar Oil Co.**
**4060 Austin Blvd.**
**Island Park, NY 11558**
**Phone: (516) 889-8000**

**■CARDON OIL CORP.**
**1837 E. 3rd St.**
**Tempe, AZ 85281**
**Phone: (602) 967-7691**
Key: T, M; Gw, Gr, Dr, Lw
Subs: Short Stop Markets
Sunshine Truckstops
Fast Gas
Filler Fast Fuels
Wilford Cardon, Pres. & CEO
Elijah Cardon, Sec. Treas.
Terry Trendler, VP Mktg.
Bruce Holbrook, Gen. Sls. Mgr.
Loren Rohner, Supply Coord.
Rick Lane, Merch. Coord.
Greg Cardon, Exec. VP

**■CEL OIL PRODUCTS CORP.**
**5402 Dutton Ave.**
**P. O. Box 5123**
**N. Charleston, SC 29406**
**Phone: (803) 744-2525**
Key: T, M; G-Cel, Gas-Up, D, F-Cel, Gas-Up
Sub: Gas-Up Inc.
T. H. Albenesius, Jr., Pres.
T. H. Albenesius III, Exec. VP

**■CENTER INDEPENDENT OIL CO.**
**R.D. 1**
**Smock, PA 15480**
**Phone: (412) 677-4408**
Key: M; G, F, L
John R. Higinbotham, Pres.
A. D. Higinbotham, Exec. VP
Glenn Knox, Gen. Sls. Mgr.
Delores Moser, Fuel Oil Mgr.
Sophie Capan, Credit Mgr.

**■CENTRAL PETROLEUM CO.**
**548 Standard Bldg.**
**Cleveland, OH 44113**
**Phone: (216) 771-0400**
Key: M; L
Div. of Wyle Laboratories
Sub: Topsail Lubricants
P. T. Webster, Pres.
C. L. Webster, Gen. Mgr.
L. D. Powers, Farm Sls. Mgr.
William Winchester, Mktg. Mgr.
P. T. Webster, Jr., Lubrication Engr.

**■CENTURY HULBURT, INC.**
**2140 S. 88th**
**Kansas City, KS**
**Phone: (800) 225-4107**
Key: O; Lw
Sub. of: Century Oils International
H. A. (Tuffy) Mayor, III, Pres. & CEO
L. W. Okon, VP Tech.
Kelly G. Kaphart, VP

**■CENTURY REFINING CO.**
**P. O. Box 1197**
**Kansas City, MO 64141**
**Phone: (816) 968-2900**
Sub. of Anadarko Production Co., a Panhandle Eastern Co.
Key: M; Gw, LPGw
W. R. Kesler, Pres.
A. L. Beckner, VP
W. D. Hughes, VP

**■CERTIFIED OIL CO.**
**303 S. Front St.**
**Columbus, OH 43215**
**Phone: (614) 224-3175**
Key: M; G, D, F
C. M. Baker, CEO
Dean Walcutt, Pres.
W. J. Allison, Exec. VP

**■CHAMPLIN PETROLEUM CO.**
**Box 7**
**Fort Worth, TX 76101-0007**
**Phone: (817) 877-6000**
Key: R-M; Gw, Fw, Dw, LPGw
Sub. of Union Pacific Corp.
Sub. Harbor Service Stations, Inc.
W. L. Adams, Pres.
L. W. Marshall, Sr. VP, Manuf. and Mktg.
R. R. Morgan, Gen. Mgr., Mktg.
K. R. Richardson, Mgr., Mkt. Devel.
D. R. Gray, Mgr., Private Brand Mktg.
K. E. Dainton, Mgr., Bulk Sls.
K. M. Jahnke, Mgr., Prod. Supply and Distrib.
S. M. Fuller, Mgr., Prod. Supply
L. B. LeFevre, Jr., Mgr., Prod. Distrib.
R. M. Vecchio, Mgr., Mktg., Plng. & Analysis
M. L. Bowles, Mgr., Pricing & Special Prod. Mktg.
R. D. Admire, Mgr., Prod. Pricing
E. A. Kerber, Mgr., Special Prod. & Indus. Sls.

**West Coast Marketing**
**Champlin Petroleum Company**
**P.O. Box 920**
**Long Beach, CA 90801**
**Phone: (213) 436-4261**
W. A. Howiler, Mgr., Supply Distrib. & Mktg.
M. R. Callahan, Mgr., Prod. Sls. & Supply

**■CHAPMAN, INC.**
**P. O. Box 1298**
**Sherman, TX 75090**
**Phone: (214) 893-8106**
Key: M, G-Texaco
Ellis L. Olmstead, Pres.

**■CHARTER MARKETING CO.**
**P.O. Box 4726**
**Jacksonville, FL 32232**
**Phone: (904) 358-4111**
Key: I; G, D, F
Subsidiary of The Charter Co.
Subsidiaries:
Northeast Petroleum Industries
Charter Crude Oil Co.
Charter International Oil Co.
Charter Marketing Co.
Charter Oil (Bahamas) Ltd.
Riffe Petroleum Co.
New England Petroleum Corp.
J. F. Leonardo, Pres.
J. C. Thompson, VP Opns.
A. L. Cahoon, VP Controller
R. R. Johnson, VP Mktg.
W. R. Booth, VP Trans.
W. G. Schwind, VP Prod. Devel.

**Northeast Petroleum Industries**
**295 Eastern Avenue**
**Chelsea, MA 02150**
**Phone: (617) 884-7570**
Joseph R. DeStefano, Pres.

**Charter Crude Oil Co.**
**8441 Gulf Freeway**
**Houston, TX 77017**
**Phone: (713) 643-5555**
Larry J. Golden, Pres.
Gabriel E. Kaspar, Trading VP

**Charter International Oil Co.**
**8441 Gulf Freeway**
**Houston, TX 77017**
**Phone: (713) 640-4700**
Michael E. Crismon, Pres.
Ray Glasscock, Sr. VP—Manuf.
B. F. Stanley, Sr. VP—Trans.
G. Richard Boyle, Sr. VP—Adm.

**New England Petroleum Corp.**
**P.O. Box 2017**
**Jacksonville, FL 32202**
**Phone: (904) 358-4426**
Richard J. Bastien, Pres.
Charles A. Kroetz, Sr. VP—Mktg.
James F. Easterlin, Sr. VP—Sup. & Distrib.

**Riffe Petroleum Co.**
**P.O. Box 2017**
**Jacksonville, FL 32202**
**Phone: (904) 358-4069**
H. B. Horner, Pres.

**■CHEKER OIL CO.**
**P. O. Box 162**
**Hazel Crest, IL 60429**
**Phone: (312) 335-0600**
Key: M; G, D
L. W. Cochran, Pres.
M. E. Mittleman, VP Mktg.
H. A. Forshaw, VP Eng.
E. J. Garneau, VP Fin.

**■CHEVRON CANADA LTD.**
**1500-1050 W. Pender St.**
**Vancouver, B.C. V6E3T4**
**Phone: (604) 668-5300**
J. P. McIntyre, Pres.
D. R. Kestell, VP Mktg.
J. D. McMaster, VP, Finance
D. W. Reed, VP Mfg. & Ref. Mgr.

**■CHEVRON U.S.A.**—Listed under Standard Oil Co. of Calif.

**■W. R. CHILDRESS OIL CO.**
**2729 N.E. 28th St.**
**Fort Worth, TX 76111**
**Phone: (817) 834-1901**
Key: M, G-Shamrock, Phillips, D
W. R. Childress, Jr., Pres.
David Woods, VP Opns & Sls.
Angelia Childress, VP Admin.

**■CHRISTENSEN OIL CO.**
**P. O. Box 987**
**Green Bay, WI 54301**
**Phone: (414) 437-3257**
Key: M; G, D, F
Herb E. Hoeft, Pres.

**■CIBRO SALES CORP.**
**1040 East 149th St.**
**Bronx, NY 10455**
**Phone: (212) 585-0600**
Key: R-M; G, D, F, L
P. James Massa, Pres. & CEO
Peter Cirillo, Secy.
John Cirillo, Treas.
Nicholas W. Cirillo, Exec. VP
William V. Cirillo, VP
F. Candreva, Mgr., Supply & Opns.
G. A. Shaw, Supvr., Marine Opns.
C. Sweet, Mgr., Retail Sls.
L. Vario, Mgr., Wholesale Sls.
J. Kiopstoc, Regl. Mgr., Albany
Don Sanders, Plant Mgr., Albany
P. Gladis, Gen. Mgr., Philadelphia
F. Saccio, Gen. Mgr., L. I.
G. Vavoulis, Gen. Mgr., S&D
R. J. Zinser, Mgr. Trading
G. Schiesser, Mgr. Trading

**■CIBRO PETROLEUM**
**Port of Albany**
**Albany, NY 12202**
**(518) 462-4237**

**■THE CIRCLE K CORP.**
**4500 S. 40th St.**
**P. O. Box 20230**
**Phoenix, AZ 85036**
**Phone: (602) 437-0600**
Key: M; Gr-Aero, Lr, Dr
Karl Eller, Chmn.
Bob Hutchinson, Pres. Circle K Corp.
Jim Wiliamson, Pres. Circle K Convenience Stores, Inc.
Robert Burns, Sr. VP Gasoline Opns.
John Clark, Mktg. Mgr.
Mike Sroda, Gasoline Supply & Distrib. Mgr.

**KEY**

| | |
|---|---|
| **I** | Integrated |
| **T** | Transporter |
| **R-M** | Refiner-marketer |
| **M** | Marketer |
| **G** | Gasoline, wholesale, retail |
| **F** | Fuel Oil, wholesale, retail |
| **D** | Diesel, wholesale, retail |
| **LPG** | Liquefied petroleum gas wholesale, retail |
| **L** | Lubricants, wholesale, retail |
| **w** | wholesale only |
| **r** | retail only |

**■CITGO PETROLEUM CORP.**
**Box 3758**
**Tulsa, OK 74102**
**(918) 495-4000**
Key: T, R-M; G, F, D, LPGw, L
Sub. of The Southland Corp.
Subs.: Citgo Pipeline Co.
Citgo Pipeline Investment Co.
Citgo Caribbean Corp.
Citgo International Supply Co.
Citgo International Trading Co.
S. J. Susser, Pres.
M. A. Johnson, Sr. VP Corp. Opns. & Planning
J. H. Dewell, Sr. VP Mktg & Supply
M. J. Sedlacek, VP Wholesale Mktg.
M. K. Roemer, VP Store Opns.
S. R. Berlin, Gen. Mgr. Fin. Svcs.
D. A. Wilson, Gen. Mgr. Trans. Group

**■COAST OIL CO.**
**4250 Williams Rd.**
**San Jose, CA 95129**
**Phone: (408) 252-7720**
Key: M-Texaco-Arco-Independent; G, D, F, L
Subs: Barkow Petroleum Co.
Mission Trail Oil Co.
Richard Distributors, Inc.
Coast Stations, Inc.
M. T. Transportation Co.
Norcal Petroleum Co.
Herbert F. Richards, Pres.
Royce Andrews, VP Whsl. Sls.
Jerry Cummings, VP Retail Sls.
Jack Kloster, Controller
Judi Nauman, Credit Mgr.

**■THE COASTAL CORP.**
**9 Greenway Plaza**
**Houston, TX 77046**
**Phone: (713) 877-1400**
Key: I; G, F, D, LPG, L
Subs. include
Coastal States Marketing Co.
Derby Refining Co.
Colorado Interstate Corp.
Cosbel Petroleum Co. (The Belcher Companies)
O. S. Wyatt, Jr., Chmn & CEO
H. L. Blomquist, Jr., Pres
F. M. Otto, Sr. Exec. VP
J. R. Paul, Exec. VP
J. B. McElreath, Sr. VP, Acctng. & Contr.
K. O. Johnson, Corp. Sr. VP & Chmn. Belcher Oil Co.
G. L. Brundrett, Jr., Sr. VP, Legal, & Gen. Counsel
M. P. Aquilina, Sr. VP Ref. & Mktg. Opns., West Coast
A. J. Gilbreath, Sr. VP Supply & Trans., West Coast
D. J. Hill, Sr. VP, Ref. & Mktg. Opns., Gulf Coast
P. J. King, Jr., Sr. VP & Pres., Colorado Interstate Gas Co.
W. E. Spencer, Sr. VP, Explo. & Prod.
B. W. Schrader, Sr. VP & Deputy Gen. Counsel
A. W. Smith, Sr. Pres., Belcher Oil Co.
L. C. Smith, Sr. VP Coal & Chem.
S. F. Willson, Jr., Sr. VP Corp. Sup. & Trans.

**Coastal States Marketing**
**9 Greenway Plaza**
**Houston, TX 77046**
**Phone: (713) 877-1400**
Key: T-R-M; Gw, Dw, Fw, LPGw
H. L. Blomquist, Jr., Pres.
F. G. Otto, Sr. VP

**Eastern Reg. Sls. Off.**
**56 Dundee Ct.**
**Mahwah, NJ 07430**
**Phone: (201) 529-1646**
C. R. Romer, Jr., Mgr., Refd. Prods.

**Derby Refining Co.**
**P. O. Box 1030**
**Wichita, KS 26701**
**Phone: (316) 267-0361**
Key: Prod.-R-M; G, D, Fw
R. J. Johnston—Pres.
R. H. Meadows, VP Crude, Prod. Supply & Pipeline
R. E. Drevo, VP Whsle. Mktg.
W. W. Lee, Controller
M. D. Taylor, VP Retail Mktg.
M. D. Tindall, VP, Mktg. Svcs.
R. G. Casteel, VP Refining
O. L. Foster, Jr., VP Communications
W. L. Caldwell, Coord. Mfg. & Mktg.
R. F. Doyle, Mgr., Retail Sls.
W. R. King, Mgr., Real Estate
W. R. Decker, Mgr., Lube Oils, Tech. Sls. & Svcs.
Leo Carmen, Credit Mgr.

**Pacific Refining Co.**
**9 Greenway Plaza**
**Houston, TX 77046**
**Phone: (713) 877-1400**
Key: R-M; Gw, Dw, Fw
F. M. Otto, Chmn, CEO & Pres.
M. P. Aquilina, Sr. VP Ref. & Mktg. Opns., West Coast

**Long Beach Office**
**180 Ocean Blvd., Suite 800**
**Long Beach, CA 90802**
**Phone: (415) 799-6600**
M. P. Aquilina, Sr. VP Ref. & Mktg. Opns., West Coast
A. L. Gualtieri, Gen. Mgr. (Hercules, CA)

**Belcher Oil Co.**
**P. O. Box 525500**
**Miami, FL 33152**
**Phone: (305) 551-5200**
Key: T-M; Dw, Fw, LPGw, Lw
Kenneth O. Johnson, Chmn. & CEO
A. W. Smith, Pres.
J. F. Roehl, Jr., Sr. VP, Mktg.
J. Anthony Belcher, Jr., VP, Marine Fuel Sls.
D. Wayne Carlton, VP, Gulf Coast Reg.
Ray W. McKewon, VP, Mid-South Reg.
C. H. Leach, Jr., VP Supply
E. J. Travers, VP Opns.

**Belcher Co. of New York, Inc.**
**48-02 54th Ave.**
**Maspeth, NY 11378**
**Phone: (212) 392-6700**
Key: M; D, F
Arthur T. Soule, Pres. & CEO
Roy Miller, Mktg. VP
T. W. Costikyan, VP, Supply & Distrib.
F. F. Goebel, VP Opns. & Engrg.

**The Belcher Co. of Tennessee, Inc.**
**8700 W. Flagler St.**
**Miami, FL 33174**
**Phone: (305) 551-5200**
K. O. Johnson, Pres. & CEO
J. F. Roehl, Jr., Sr. VP

**Belcher New England**
**222 Lee Burbank Hwy.**
**Revere, MA 02151**
**Phone: (617) 284-4490**
Key: M; Gw, Dw, F
A. T. Soule, Pres.
W. D. Berberich, Exec. VP
Frederick W. Taubert, Sr. Mktg. VP
T. W. Costikyan, VP, Supply
Frederick L. Forest, Asst. VP, Supply & Distrib.
Frederick F. Goebel, VP, Opns. & Engrg.
William J. Bain, VP, Hvy. Oil Sls.

**Belcher New Jersey, Inc.**
**Foot of E. 6th St.**
**Bayonne, NJ 07002**
**Phone: (201) 437-2100**
A. T. Soule, Pres.
W. D. Berberich, Exec. VP

**■COEN OIL CO.**
**2207 Kimball Rd., S.E.**
**Canton, OH 44711**
**Phone: (216) 452-7944**
Key: M-Amoco; G-Amoco, Union, Mobil, Shell, D, F-Amoco, L
Carlton B. Coen, Pres.
Charles R. Coen, Exec. VP
Donald C. Coen, VP, Mktg.
Ralph Kelly, Gen. Sls. Mgr.

**■COLONIAL OIL INDUSTRIES**
**Box 576**
**N. Lathrop Ave.**
**Savannah, GA 31402**
**Phone: (912) 236-1331**
Key: T, M, O; G, F, L, D
Subs: Interstate Stations, Inc.
Colonial Interstate, Inc.
Chatham Towing Co., Inc.
Colonial Terminals, Inc.
Robert H. Demere, Pres.
B. E. Leigh, VP & Treas.
Robert H. Demere Jr., VP
S. B. Wimbish Jr., VP Sls.
W. A. Baker Jr., Asst. VP Opns.
Andrew J. Cobb, Asst. VP, Retail Fuel Oil
G. Herbert Griffin Jr., Secty. & Credit Mgr.
Raymond S. Demere, Retail Sls. Mgr.
Robert W. Jarrell, Storage Sls. Mgr.

**■COMET OIL CO.**
**P. O. Box 22033**
**Savannah, GA 31403**
**Phone: (912) 234-5396**
Key: M; Gr
W. A. Winburn III, Pres.
W. A. Winburn IV, Sec. Treas.

**■COMMONWEALTH OIL REF. CO. INC.**
**4005 Broadway**
**San Antonio, TX 78209**
**Phone: (512) 828-8444**
Key: O; Gw, Fw, Dw, LPGw, Lw
Stanford N. Phelps, Chmn.
Robert Dieppa, VP Mfg.
Christopher Whyte, VP Fin.
Edward D. Doherty, Pres. CEO

**■COMO OIL CO.**
**749 E. Superior St.**
**Duluth, MN 55802**
**Phone: (218) 722-6666**
Key: M-Phillips, G, D, F, LPG, L
Subs: Como Gas Sales
Como Tire & Battery
Myles Hall, Pres.
Gerald Sher, VP
Larry Everett, LPG Mgr.
L. H. Brown, Treas.
Robert Hall, Secy.

**■COMO OIL CO.**
**2203 W. McNab Rd.**
**Pompano, FL 33060**
**Phone: (305) 972-3820**
**(305) 945-3820**
Key: M-Phillips; G, D, F, L
Wm. Call, Exec. VP
D. L. Miller, VP
Jerry Barber, Gen. Mgr.

**■CONNA CORP.**
**981 S. Third St.**
**Louisville, KY 40203**
**Phone: (502) 584-1281**
Key: M; G, Dr
Subs: Remote Services, Inc.
Convenient Industries of America
Joe P. Peden, Chmn., Pres. & CEO
Robert T. Johnson, Exec. VP

**Remote Services, Inc.**
**P. O. Box 35580**
**981 S. Third St.**
**Louisville, KY 40232**
**Phone: (502) 584-3247**
Key: M; Gr, Dr, Fr
Subs: Convenient Gasoline, Inc. (NY)
Petco Oil Co.
J. P. Peden, CEO, Chmn., Pres.
G. E. Wagner, Pres.
C. A. Reinhardt, N. Reg. Sls. Mgr.
William L. Jessie, S. Reg. Sls. Mgr.
M. S. Winner, Opns. Mgr.
Sally R. Brady, Mgr. Supply & Distrib.

**Convenient Industries of America**
**981 S. Third St.**
**Louisville, KY 40203**
**Phone: (502) 584-1281**
Robert T. Johnson, Pres.

**■CONOCO, INC.**
**(Corporate Offices)**
**Du Pont Building**
**1007 Market Street**
**Wilmington, DE 19898**
**Phone: (302) 594-3400**
Sub. of E.I. Du Pont de Nemours & Co.
Ralph E. Bailey, Chmn. & CEO

**Conoco Petroleum Operations**
**5 Greenway Plaza East**
**P.O. Box 2197**
**Houston, TX 77252**
**Phone: (713) 965-1000**
Key: I; G, D, F, LPG, L
Subs: Kayo Oil Co.
Douglas Oil Co. of Calif.
C. S. Nicandros, Pres.
E. J. Grivetti, Exec. VP Explor. & Prod.
D. R. Clark, Exec. VP Petro. Prod.
O. Newell, Jr., Exec. VP Mfg. Tech.

**Conoco Division Operations**
C. P. McCahill, Gen. Mgr.
W. E. Eldred, Mgr., Adv. Mdsg.
E. L. Saul, Coord., Distrib. Rel.

**Northern Marketing Div.**
**Corporate Woods**
**10890 Benson**
**Overland Park, KS 66210**
**Phone: (913) 341-2800**
R. C. Hager, Div. Mgr.

**Southern Marketing Div.**
**Lincoln 10 Bldg.**
**P.O. Box 2197**
**Houston, TX 77252**
**Phone: (713) 492-3100**
C. R. Shuttlesworth, Div. Mgr.

**Western Marketing Div.**
**Orchard Place 4**
**5990 S. Syracuse St.**
**Englewood, CO 80111**
**Phone: (303) 740-6347**
J. P. O'Brien, Div. Mgr.

**Kayo Oil Co.**
**1221 East Main St.**
**Chattanooga, TN 37408**
**Phone: (615) 756-5770**
F. B. Ehrhardt, Pres.
R. L. Fulcher, VP, Corp. Affairs
R. A. Pierce, VP, Opns.
J. S. Hill, VP, Svcs.

**Wholesale & Commercial Opns.**
E. C. Fenton, Jr., Gen. Mgr.
J. T. Barron, Div. Mgr., Trans. Sls.
V. E. Flinn, Div. Mgr. Asphalt & Resid
C. W. Mussler, Div. Mgr. Lubes
B. C. Striegler, Mgr. Tech. Svcs.
D. R. Sain, Mgr., Lube Opns. & Auto Lubes
R. L. Nohr, Mgr., Indus. Sls.
H. P. Dodson, Div. Mgr., Resellers

**■CONSUMERS GASOLINE STATIONS**
**P.O. Box 23309**
**Nashville, TN 37202**
**Phone: (615) 259-3226**
Key: M; Gr, Dr, Lr
W. F. Davidson, Pres.
L. C. Morris, VP

**■CONSUMERS OIL CORP.**
**1473 Lamberton Rd.**
**Trenton, NJ 08607**
**Phone: (609) 394-8101**
Key: M-Citgo-Chevron; Gr, D, F-Mobil, L
Sub: Hillman-Thompson Oil Corp.
Richard W. Fineburg, Pres.
Merton K. Goodall, Jr., VP
S. M. Morris, Sec. Treas.

**■CONSUMERS OIL SERVICE**
**Paulsboro, NJ 08066**
**Phone: (609) 423-0010**
Key: M; G, D, F, L
James D. Cameron, Pres.

**■CONSUMERS PETROLEUM**
**808 Post Rd.**
**Fairfield, CT 06430**
**Phone: (203) 259-5291**
Key: M; Gw-Texaco, Dw, Fw, LPGw, Lw
Ernest A. Wiehl, Jr., Pres.

**■CONSUMERS PETROLEUM CO.**
**13507 Auburn**
**Detroit, MI 48223**
**Phone: (313) 272-3800**
Key: M; G, F, D, L
William Feldman, Pres.
Frank J. Carroll, Sec. Treas.
Bruce Butzier, Gen. Sls. Mgr.

**■CONVENIENT INDUSTRIES OF AMERICA**—(See Conna Corp.)

**■COOK & COOLEY, INC.**
**1701 W. Wardlow Rd.**
**Long Beach, CA 90810**
**Phone: (213) 775-7361**
Key: M, G-Texaco, D, Fw, L
Robt. T. Bodamer, Pres. & CEO
Thomas E. Bodamer, Exec. VP
Jack Reed, Gen. Sls. Mgr.
Sylvia M. Bodamer, Adv. Mgr.

### KEY

| | |
|---|---|
| **I** | Integrated |
| **T** | Transporter |
| **R-M** | Refiner-marketer |
| **M** | Marketer |
| **G** | Gasoline, wholesale, retail |
| **F** | Fuel Oil, wholesale, retail |
| **D** | Diesel, wholesale, retail |
| **LPG** | Liquefied petroleum gas wholesale, retail |
| **L** | Lubricants, wholesale, retail |
| **w** | wholesale only |
| **r** | retail only |

■**CORAL RIDGE CORP.**
**10615 National Turnpike**
**Fairdale, KY 40118**
**Phone: (502) 366-1935**
Key: M; Gr, Fr, Dr, LPGr, Lr
B. G. Broadhurst, Pres.
Billie Jean Broadhurst, VP

■**CORY'S GASOLINE STATIONS**
**Box 1412**
**Mesa, AZ 85201**
**Phone: (602) 253-8275**
Key: T, M; G, Fw, D, LPGw, Lw
Phil Cory, Pres.
Roxana Harvey, Sec. Treas.
Don Clark, Mgr. Trans.

■**CROCKETT OIL CO.**
**P.O. Box 728**
**1011 Empire**
**Joplin, MO 64802**
**Phone: (417) 624-2311**
Key: M Conoco; Apco; Mobil; Sun G, D, F, L
B. F. Hamilton, CEO & Exec. VP
D. L. Crockett, Pres.

■**CROWN CENTRAL PETROLEUM CORP.**
**One North Charles St.**
**P.O. Box 1168**
**Baltimore, MD 21203**
**Phone: (301) 539-7400**
Key: I; G, D, LPGw, L
Henry A. Rosenberg, Jr., Chmn. & CEO
G. W. Jandacek, Pres. & Chief Opg. Off.
W. M. Ginder, Exec. VP
John Wood, Grp. VP
G. L. Shaw, VP, Mktg.
J. P. Candella, Ret. Mktg. Mgr.
L. B. Raborn, Whsle. Mktg. Mgr.
M. S. Koethcke, Mktg. Adm. Mgr.
J. H. McNulty, North Reg. Sls. Mgr.
B. T. Boshell, Sov. Reg. Sls. Mgr.
A. M. deLange, Opns. & Devel. Mgr.
R. H. Hemphill, Mktg. Svcs. Mgr.
H. H. Crossan, R.E. Mgr.
J. C. Corcoran, Prcg. & Alloc. Mgr.

■**CRYSTAL FLASH PETROLEUM CORP.**
**P.O. Box 684**
**Indianapolis, IN 46206**
**Phone: (317) 872-4163**
Key: M; Gr, Dr, Fr, Lr
Sub: Michigan Crystal Flash Petroleum Corp.
Mac Fehsenfeld, Pres.
F. M. Fehsenfeld, VP
Frank Fehsenfeld, Sec. & Chmn.

■**CRYSTAL PETROLEUM CO.**
**P.O. Box 4180**
**4041 Agnes**
**Corpus Christi, TX 78408**
**Phone: (512) 883-6574**
Key: T-M; G-Shell, D, L
Sub: Gandy-Robertson, Inc.
C. A. Robertson, Jr., Pres.
R. M. Carroll, Mgr., Gen. Sls.

■**CRYSTAL REFINING CO.**
**801 N. Williams**
**Carson City, MI 48811**
**Phone: (517) 584-3157**
Key: R-M; Gw, Fw
Marvin Fleischman, Pres.

■**CRYSTAL PETROLEUM CO., INC.**
**P.O. Box 9128**
**Birmingham, AL 35213**
**Phone: (205) 870-8710**
Key: M; G-Crystal, D
Sub. of Crystal U.S.A. Oil, Inc.
Joseph R. Saxon, Pres. & CEO
Bill F. Maddox, VP Mktg. & Food Stores
Linda Maddox, VP Acctg.
Kathy Lepper, Sec. VP

■**CUMBERLAND OIL CO.**
**7260 Centennial Blvd.**
**Nashville, TN 37209**
**Phone: (615) 297-8531**
Key: T, M, O; Gw, FDw, L
Sub-Distrib.: Dean Oil Co.
John F. Cummins, Pres.
Richard F. Cummins, VP & Gen. Mgr.
V. H. Hunnicutt, Sec.
S. C. Lockett, Mgr., Fuel Oil Sls.
D. V. Harrelson, Mgr., Indus. Oil Sls.
A. Humphrey, Retail Mgr.

■**CUNNINGHAM OIL CO.**
**343 Carswell Ave.**
**Holly Hill, FL 32017**
**Phone: (904) 253-7621**
Key: M; Gw, D, L
Lee C. Culler, Pres.
Jerry Olson, VP LPG. Div.
Bob Thurman, VP
Charlie Winkler, Secty. Treas.

■**CURTIS PARKER OIL CO.**
**P.O. Box 6081**
**Shreveport, LA 71136-6081**
**(318) 868-2716**
T, M; Gw, Fw, Dw, Lw
B. K. Eaves, Pres. & CEO
D. L. Moyer, TBA Mgr.
Hollis Coe, Opns. Mgr.
Clay G. Eaves, Svc. Sta. Supvr.

■**CURT'S OIL CO.**
**Box 1759**
**Muskogee, OK 74401**
**Phone: (918) 682-7888**
Key: T-M; G, L
Thurman Curtsinger, Pres. & CEO
Bob J. Curtsinger, Exec. VP
David Clark, VP

■**D & W OIL CO.**
**14330 Wyoming**
**Detroit, MI 48238**
**(313) 834-3248**
Key: M; F, D
Charlie F. White, Fnddr.
Charlie A. White, Gen. Mgr.
Larry E. Bigelow, VP

■**K E DAVID LTD**
**443 Paxson Ave.**
**Glenside, PA 19038**
**Phone: (215) 886-8900**
Key: M; G-Citgo, D, F, L
Ken David, CEO
Kenneth David, Pres.
Kent David, Exec. VP
Fred Casilo, VP, Mktg.
Charles Kelb, Gen. Sls. Mgr.

■**DAVIS-HOWLAND OIL CORP.**
**200 Anderson Ave.**
**Rochester, NY 14607**
**Phone: (716) 473-6650**
Key: M, O; L
Sub: H & W Chemicals
Lawrence R. Klepper, Pres.
Harry J. Esposito, Gen. Sls. Mgr.
Robert R. Kiely, VP Opns.
Anne Vaughan, VP Pur.

■**DEAD RIVER CO.**
**55 Broadway**
**Bangor, ME 04401**
**Phone: (207) 947-8641**
Key: T-M; G, D, F, LPG, L
Subs: Scott Transportation Webber Tanks, Inc. (50% owned)
P. Andrew Nixon, Pres. & CEO
F. M. McClain, VP Petroleum
F. W. Wallace, Gen. Mgr.-Reg. 1
A. H. Walton, Gen. Mgr.-Reg. 2
W. R. Harmon, Prod. Procurement

■**DEBLOIS OIL CO.**
**Colfax & Concord St.**
**Pawtucket, RI 02862**
**Phone: (401) 722-8000**
Key: M-Texaco; G-Texaco, Sunoco D, LPG, L
Subs: Beacon Oil Co.
Mercury Supply Co.
Arthur J. De Blois, Jr., CEO
Robt. E. De Blois, Pres.
Charles H. De Blois, Exec. VP
Wendell P. Clare, Jr., VP, Comptroller
David J. Splaine, VP, Sls., Mktg.
Ralston Silva, VP Opns.
Bruce Smith, Fuel Sls. Mgr.
R. W. Josef, Gasoline Sls. Mgr.
Stanley Zuba, Credit Mgr.

■**DESERT COUNTIES OIL CO.**
**750 Riverside Dr.**
**Barstow, CA 92311**
**Phone: (714) 256-8616**
Key: T-M-Arco, G, D, L
Frank H. Greinke, CEO
Richard Becktel, Pres.
Donovan Greinke, Exec. VP

■**DESERT OIL CO.**
**P.O. Box 609**
**Rock Springs, WY 82901**
**Phone: (307) 362-6611**
Key: T, M; G, D, L
Sub.-Distrib.: Farson Service Pinedale Chevron
C. Keith West, Pres. & Chmn.
Charles K. West, II, Exec. VP, Whlsl. & Gen. Sls. Mgr.
Joe Legerski, Opns. Mgr.
Evan Williams, Trans. Mgr.
Zoanne Henderson, Credit Mgr.
Steven P. West, Mktg. VP, Retail

■**DESERT PETROLEUM, INC.**
**P.O. Box 1601**
**Oxnard, CA 93032**
**(805) 485-0430**
I; G, FW, D
Sub: Gasco Gasoline, Inc.
William E. Thompson, Pres.
Ben Larner, VP Supply and Mktg.
Mike Saliba, VP Raw Materials Supply
Robert van der Valk, Mgr. Supply & Mktg. (S. Dist.)
Patrick Barnecut, Mgr. Supply and Mktg. (N. Dist.)
Dean Jensen, VP Trans.
Gary Carson, VP Retail

■**DIAMOND INDUSTRIES**
**A and Heald Sts.**
**P.O. Box 629**
**Wilmington, DE 19899**
**Phone: (215) 459-9105**
Key: M; G, D, F
Subs: Altemos Fuel Oil Co., Allentown,
Diamond Management
Diamond Fuel Oil Co.
Diamond Petroleum Co.
Diamond Ice & Fuel Co.
Medford-Dunleavy, Inc.
Stanley W. Mann, Pres. & CEO
Louis Mancheria, Sr., VP
R. Gardner Kahoe, III, Esq., VP
R. T. Wright, VP, Admin.
Joseph Worrell, VP, Trans.
G. C. Engle, Sr. VP, Opns.

■**DIAMOND SHAMROCK REFINING & MARKETING CO.**
**P.O. Box 20267**
**San Antonio, TX 78220**
**Phone: (512) 223-2631**
Key: R-M; G, Fw, D, LPGw, L
Sub. of Diamond Shamrock Corp.
Subs: Sigmor Retail
Autotronic System, Inc.
Industrial Lubricants
Riley Epps, Pres.
Dewey Mark, Exec. VP
Ed Prater, Manfg. Group
W. Klesse, VP Logistics & Strategy
Robert Farmer, VP Mktg. Group
Robert Heard, VP Whlsl. Mktg.
Tom Lyons, VP Retail Mktg., Autotronics
Joe Walden, VP Retail Mktg., Sigmor
Jim Jenkins, VP Industrial Lubricants
Lamar Simmons, Zone Mgr., Whlsl.
Hershel Sorrels, Zone Mgr., Whlsl.
Larry Johnson, Zone Mgr., Whlsl.
Ken Eaton, Zone Mgr. Retail
John McPherson, Zone Mgr. Retail
G. Mayberry, Eastern Div. Mgr. Retail
G. Jordan, Western Div. Mgr. Retail
W. Hilbert, Mgr. Industrial Sls.
Dan Engler, Mgr. Commercial Consumer Sls.
Mike Russell, Mgr. Merchandising & Prom.
Gene Smith, Mgr. Jobber Communications

■**DICKEY, INC.**
**Packwood, IA 52580**
**Phone: (319) 695-5401, 800-452-1011, 800-247-1081**
Key: T-M G, D, F, L
Subs: Dickey Distributing
Harold Dickey Transport
Doug Dickey, Pres.
Harold Dickey, Exec. VP
Dave Dickey, VP Mktg.
Dan Dickey, Gen. Sls. Mgr.
Deb Bemis, Sec. Treas.

■**DIXIE OIL CO.**
**Rt. 5, P.O. Box 1007**
**Tifton, GA 31793**
**Phone: (912) 382-2700**
Key: T-M; G, D
Bobby B. Lindsey, Pres. & Chief Exec. Off., Sls. Mgr.
Rheudean Denby, Exec. VP
W. F. Lindsey, Chmn. Brd.

■**DRAKE'S REFINING STATION**
**P.O. Box 13129**
**Lansing, MI 48901**
**Phone: (517) 394-6747**
Key: M; G, D
E. T. Dennis, CEO
E. T. Dennis III, Pres.

■**EAST COAST OIL CORP.**
**1420 Commerce Rd.**
**Richmond, VA 23224**
**Phone: (804) 232-2373**
Key: M; Gr, Dr, Fr
T. N. Allen, Pres.
J. M. Steele, Sr. VP & Gen. Mgr.

■**EDDY REFINING CO.**
**Box 185**
**Houston, TX 77001**
**Phone: (713) 928-3281**
Key: R-M; Gw, Dw, Fw
E. C. Scurlock, Pres. & CEO
W. L. Adkins, VP Treas.

■**EDGINGTON OIL CO.**
**2400 E. Artesia Blvd.**
**Long Beach, CA 90805**
**Phone: (213) 636-2524, (213) 423-1465**
Key: R-M; Gw, Fw, Dw, Lw
Sub of Triad America Corp.
Subs: Sahuaro Petroleum & Asphalt Co.
Mark G. Newgard, Pres.
Arch H. Humphrey, VP & CEO
Martin S. Simon, Exec. VP Manuf. & Asphalt Mktg.
Al L. Siegner, VP Supply & Trading
Richard F. Kent, VP Prod.

■**ELM CITY FILLING STATIONS**
**P.O. Box 9715**
**New Haven, CT 06513**
**Phone: (203) 624-5137**
Key: M; F, D
S. J. Horton, Pres.

■**ENGLEFIELD OIL CO.**
**447 James Pkwy.**
**Newark, OH 43055**
**Phone: (614) 928-8215**
Key: M; G, F, D, L
Subs: Oil Service Corp.
River Oil Co.
Freight Sales
Morral Oil Co.
F. W. Englefield, CEO
James M. Kennedy, Pres.
F. W. Englefield IV, VP
Benjamin Englefield, VP Trans/Supply
Ed Stephens, VP Mktg.
F. McManus, VP Whlsl. Sls.
Fred Kaseman, Chief Accountant

■**ERGON, INC.**
**Pearl at Lamar**
**P.O. Drawer 1639**
**Jackson, MS 39205**
**Phone: (601) 948-3472**
Key: I; Dw, Fw, LPG, L
Subs: Lampton Love
Ergon Refining Co.
Ergon Exploration Co.
L. B. Lampton, Ch & Pres.
H. D. Owen, Exec. VP
R. F. Cox, Sr. VP, Exploration
George D. Ishee, Sr. VP Crude
L. B. Lampton Jr., VP Retail Sls.
Lee C. Lampton, VP, Whlsl. Sls.
J. Everett, Area Sls. Mgr.

**Product Terminals:**
**Chattanooga, TN 37405**
**Phone: (615) 266-6723**

**Greenville, MS 38701**
**Phone: (601) 332-4849**

**Memphis, TN 38113**
**Phone: (901) 775-1247**
Wm. Baker, Area Sls. Mgr.

**Mobile, AL 36601**
**Phone: (205) 438-9891**

**Vicksburg, MS 39180**
**Phone: (601) 636-7561**

**Yellow Creek, MS 38852**
**Phone: (601) 423-3689**

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Key: T-M; Gr
Alfred W. Erickson, Pres.
Ronald A. Erickson, Exec. VP
Dick Mills, VP, Sup. & Distrib.

**■ESSO PETROLEUM CANADA**
**55 St. Claire Ave. West**
**Toronto, Ontario, Canada M5W 2J8**
**Phone: (416) 968-4111**
Key: I; G, F, D, LPG, L
Sub of Imperial Oil Ltd. (Exxon Corp.)
D. K. McIvor, CEO Imperial Oil
A. R. Haynes, Pres. Imperial Oil
G. H. Thomson, Pres. Esso Petroleum
D. R. Purdie, VP Mktg.

**■ESTE OILS CO.**
**5556 Vine St.**
**Cincinnati, OH 45217**
**Phone: (513) 242-5300**
Key: M; G, F, L
Sub: McCoy Oil Co.
Albers Oil Co.
August J. Albers, CEO
Joseph R. Albers, Pres.
Andrew Brickweg, Exec. VP
Ken Smith, VP, Mktg.
Mike Riehemann, Gen. Sls. Mgr.

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**1251 Ave. of the Americas**
**New York, NY 10020**
**Phone: (212) 398-3000**
C. C. Garvin, Jr., Chmn. & CEO
H. C. Kauffmann, Pres.
R. H. Beresford, VP, Petrol. Prod. Dept.
D. L. Hamilton, Dep. Mgr., Petro. Prod. Dept.

**Exxon Co., USA**
**Box 2180**
**Houston, TX 77001**
**Phone: (713) 656-3636**
Key: I; G, D, F, LPGw, L
Randall Meyer, Pres.
E. J. Hess, Sr. VP
R. C. Kiddoo, Mktg. VP
R. T. Harvin, Whlsl. & Ind. Bus. Mgr.
S. M. Pearman, Retail Bus. Mgr.
J. R. Allred, Coordn. & Plnng. Mgr.
F. J. Lugar, Mktg. Admin. Mgr.
C. B. Raglin, Distrib. & Engr. Mgr.
P. P. Pierce, III, Bus. Devel. & Anal. Mgr.
J. S. Dick, Mktg. Tech. Svcs. Mgr.
W. L. Huff, Nat'l. Accts. Sls. Mgr.
J. L. Stanislaus, TBA, Prod. Mgr.

**Northeastern Reg. (Retail)**
**101 Merritt 7**
**Norwalk, CT 06851**
R. V. Hansen, Reg. Mgr.
R. L. Conner, Retail Sls. Mgr.
C. W. Shields, Retail Sls. Mgr.
J. M. Gorevan, Mktg. Dvlpmt. Mgr.
J. J. Pepas, Distrib. & Engr. Mgr.
B. C. Graves, Employee Rels. Mgr.
C. W. Shields, Reseller/Distrib. Mgr.

**Eastern Reg.**
**Box 1288**
**Baltimore, MD 21203**
W. E. Gattis, Reg. Mgr.
B. E. McLeod, Retail Sls. Mgr.
W. H. Cash, III, Retail Sls. Mgr.
D. L. Thibodeau, Mktg. Dvlpmt. Mgr.
J. S. Olsen, Distrib. & Engr. Mgr.
M. A. Robertson, Employee Rels. Mgr.

**Southern Reg.**
**Box 367**
**Memphis, TN 38101**
T. F. Smith, Reg. Mgr.
W. R. Carter, Retail Sls. Mgr.
M. O. Waldman, Retail Sls. Mgr.
D. H. Burkhardt, Mktg. Dvlpmt. Mgr.
W. C. Stewart, Distrib. & Engr. Mgr.
E. S. Robertson, Employee Rels. Mgr.

**Western Reg.**
**5151 Belt Line Road**
**Dallas, TX 75240**
K. R. Fink, Reg. Mgr.
R. R. Eaton, Mktg. Dvlpmt. Mgr.
F. W. Butler, Ret. Sls. Mgr.
R. L. Steen, Ret. Sls. Mgr.
M. E. Rollins, Distrib. & Engr. Mgr.
J. L. Randolph, Employee Rel. Mgr.
D. L. Mitchell, Distrib. Bus.

**■FCX, INC.**
**P.O. Box 2419**
**Raleigh, NC 27602**
**Phone: (919) 828-4411**
Key: T-R-M-Unico; G, D, F, L, LPG
Marvin McClam, Pres. & Gen. Mgr.
C. E. Smith, VP, Finances
Weldon Blanton, VP, Procurement
R. B. Stevens, Mgr., Petroleum
Jerry Senter, Asst. Mgr., Petroleum

**■FKG OIL CO.**
**P.O. Box 122**
**Belleville, IL 62222**
**Phone: (618) 233-6754**
Sub. of Moto, Inc.
V. Kirchoff, Pres. & CEO
C. Parrish, Exec. VP
R. Haase, VP Purch.
D. Howellman, VP Opns.
J. Forsyth, Mktg. VP

**■FS SERVICES**
**(Name Changed to Growmark, Inc.)**

**■FAIRLIE & WILSON CO.**
**533 So. 5th St.**
**Elizabeth, NJ 07206**
**Phone: (201) 354-2100**
Key: M; Dr, Fr
Sub.: Eastern Fuel Co.
John B. Wade, Jr., Pres. & CEO

**■FARMLAND INDUSTRIES**
**3315 N. Oak Trafficway**
**Box 7305**
**Kansas City, MO 64116**
**Phone: (816) 459-6000**
Key: R-M; Gw, Fw, Dw, FPGw, Lw
Sub: Farmland International Energy
Kenneth A. Nielsen, Pres. & CEO
R. H. Wakefield, VP Petroleum Opns.
J. M. Fenley, VP Refined Fuels
O. N. Shoup, VP NGL, Natural Gas
G. H. Richter, VP TBA/Lubricants

**■FARM-OYL CO.**
**2333 Hampden Ave.**
**St. Paul, MN 55114**
**Phone: (612) 646-7571**
Key: Mfr. L; L
Robert E. Larson, Pres. & CEO
Rich Hill, Mktg. VP
Robert Anderson, Corp. Secty.
Ralph Beard, Prod. Mgr.

**■FARM STORES**
**5800 N.W. 74th Ave.**
**Miami, FL 33166**
**Phone: (305) 592-3100**
Key: T-M; G
A. S. Fogg, Chmn.
Tim Kitchen, Pres.
R. N. Simon, Mktg. Dir.
S. M. Fogg, VP Opns.

**■ROBERT FAWCETT & SON CO.**
**Tyler Ct.**
**Cambridge, MA 02140**
**Phone: (617) 547-2380**
Key: M; F
Subs: Automatic Heating Service
Monroe Oil
Gallagher Oil Co.
A. W. Nile Co.
Robt. R. Fawcett, Pres.
Robt. W. Fawcett, Treas.
Richard B. Fawcett, Exec. VP

**■FIRELINE PETROLEUM**
**777 Dedham St.**
**Canton, MA 02021**
**Phone: (617) 828-4900**
Key: M; G, Fw, D
Sub: Cumberland Farms
D. B. Haseotes, CEO
Jack Ryan, Dir. Supply Dist.
Neil Lawrence, Sup. Dist. Mgr.
R. M. Quinlan, Mktg. VP

**■FILL-UP, INC.**
**205 Columbia St., NE**
**Salem, OR 97303**
**Phone: (503) 588-0455**
Key: M; G, F, D, L
Michael M. Truax, Pres.

**■FISCA OIL CO.**
**P.O. Box 3363**
**Kansas City, KS 66103**
**Phone: (913) 236-7000**
Key: M; Gr, Dr
M. R. Hudson, Pres. & CEO
W. M. Van Horn, Exec. VP
Robert Crews, Jr., Mktg. VP/Treas.
Arnold A. Allen, Sec.

**■FLETCHER OIL & REFINING CO.**
**24721 S. Main**
**Carson, CA 90745**
**Phone: (213) 775-3503**
Key: Fw, Dw, LPGw
Robert G. Fletcher, Pres.
Eugene L. McDaniels, Exec. VP
Jack Willis, Mktg. VP

**■FLETCHER OIL CO.**
**471 N. Curtis Rd.**
**Boise, ID 83706**
**Phone: (208) 377-0024**
Key: M; G, Fw, D, Lw
Subs: Keylock Gas Co.
Price-Less Gas, Inc.
Savway, Inc.
Peter L. Hirschburg, Pres. & CEO
Andrew A. Frick, Exec. VP
George W. Fletcher, Mktg. VP

**■FLYING J. INC.**
**P.O. Box 678**
**Brigham City, UT 84302**
**Phone: (801) 734-9416**
Key: I; G, D, F
Subs: Flying J. Exploration & Production
Flying J. Petroleums
Flying J. Propane
Flying J. Development
O. Jay Call, Pres.
Paul F. Brown, Exec. VP
Phil Adams, Sr. VP
Ronald Brisendine, VP Retail
R. E. Germer, VP Supply

**Flying J. Petroleums**
**(Formerly Thunderbird Resources, Inc.)**
**P.O. Box 678**
**Brigham City, UT 84302**
R. E. Germes, VP

**■FORTMEYER'S, INC.**
**Junction U.S. 30 & Interstate 69**
**Fort Wayne, IN 46808**
**Phone: (219) 489-3511**
Key: T, O; G, F, D, L
H. C. Fortmeyer, Pres.
Tom Schoenherr, Sec./Treas.
Larry Mayers, VP Mktg.

**■DON FOSTER OIL CO.**
**P.O. Box 230**
**Richmond, MI 48062**
**Phone: (313) 727-3315**
Key: T-M; G-Mobil, Sunoco, D, F, L
Richard Foster, Pres. & CEO
Harold McNinch, Mgr., Indus./Cons. Sls., Fuel Oil Sls., Farm Sls. & Trans.

**Mio Div.**
**308 Morenci**
**Mio, MI 48647**
Richard Bruner, Div. Mgr.

**■FOUR STAR SERVICE STATIONS**
**767 44th St., SW**
**Grand Rapids, MI 49509**
**Phone: (616) 534-4913**
Key: M; Gr, Fr, Dr, Lr
Ray D. Mulliken, CEO
Joanne A. Grubbs, Pres., Secty. & Treas.

**Fox Inc.**
**P.O. Box 2419**
**Raleigh, NC 27602**
**Phone: (919) 828-4411**
Key: T-R-M-Unico; G, D, F, L, LPG
Marvin McClam, Pres. & Gen. Mgr.
Brentley DeLoatche, Sr., VP
Steve Timberlake, Credit Mgr.

**■FRANKO OIL CO.**
**P.O. Drawer 2440**
**Eugene, OR 97402**
**Phone: (503) 687-9200**
Key: T-M; G, Dr
Affiliates: Mid Oil Co.
Jones Transportation Co.
Frank J. Boresek, Pres. & CEO
Ron McPherson, VP Mktg.
Terry Hillier, Controller
Bob Hought, Ass't Mktg. VP

**■FRONTIER PETROLEUM CO.**
**214 Harvard Ave.**
**Boston, MA 02134**
**Phone: (617) 734-2070**
Key: M; Gw, Dw, Fw
Sub. of Global Petro
Arthur D. Katzenberg, Jr., Pres.

**■GARD CORP.**
**2727 Roe Lane**
**Kansas City, KS 66113**
**Phone: (913) 236-5000**
Key: M; F, L
Louis Cohn, Chmn.
Leslie D. Cohn, Pres. & CEO
Jack W. Cohn, VP

**■GARY ENERGY CORP.**
**4 Inverness Court East**
**Englewood, CO 80012**
**Phone: (303) 770-4710**
Key: R-M; Gw, Dw, LPGw
Sub. of Gary Williams Oil Producer
Ron Williams, Pres.
Joe Warr, VP Supply, Distrib.; Mktg.

**■GAS CITY LTD.**
**160 L. LaGrange Rd.**
**Frankfort, IL 60423**
**Phone: (312) 242-6070**

**■GAS-N-GO**
**P.O. Box #2**
**4141 Lake Ave.**
**Ashtabula, OH 44004**
**Phone: (216) 964-6183**
Key: M; Gr, Dr
Raymond H. Keyes, Pres. & CEO

**■GASCO GASOLINE**
(See Desert Petroleum, Inc.)

**■GASTOWN, Div. of Emro Marketing Co.**
**23660 Miles Avenue**
**Bedford Heights, OH 44128**
**Phone: (216) 335-9955**
Sub. of Marathon Petroleum Co.
Key: M; Gr, Fr, Dr, Lr
Gary E. Buroker, Pres.
Ike R. Mefford, VP Mktg.
William E. Ott, VP Controller
Stephen G. Baker, Opns. Mgr.
John L. Gee, Sls. Mgr.
William J. O'Neill, Constr. & Devel. Mgr.

**■GATE PETROLEUM CO.**
**P.O. Box 23627**
**Jacksonville, FL 32217**
**Phone: (904) 737-7220**
Herb H. Peyton, Jr., Pres.
Wayne Levitt, Pres. Gate Mktg.

**■GELDBACH PETROLEUM CO.**
**Box 157**
**Valley Park, MO 63088**
**Phone: (314) 225-3601**
Key: T-M
Mary Devereauz, Pres.
Bob Ewen, VP/Gen. Mgr.
Gary Stewart, Mktg.
Kathy Folz, Gasoline Sls.

**■GEM PETROLEUM**
**8710 E. Broadway**
**Tampa, FL 33619**
**Phone: (813) 626-2151**
Key: T, M; Gr, Dr
Sub. of Shop & Go
Jim Robinson, Gen. Mgr.

**■GENERAL OIL CO.**
**F.O. Box 2336**
**Batesville, AR 72501**
**Phone: (501) 793-9871**
Key: T-M; G, D, F
Subs: Atlas Asphalt, Inc.
General Transport Co.
Charles Oil Co.
White River Materials, Inc.
H. Paul Willmuth, Chmn.
Paul Willmuth, Pres. & CEO
Charles Willmuth, VP Constr.
Andy Moore, Exec. VP
David Boone, Retail VP
R. E. Warner, Whlsl. VP

**KEY**

| | |
|---|---|
| **I** | Integrated |
| **T** | Transporter |
| **R-M** | Refiner-marketer |
| **M** | Marketer |
| **G** | Gasoline, wholesale, retail |
| **F** | Fuel Oil, wholesale, retail |
| **D** | Diesel, wholesale, retail |
| **LPG** | Liquefied petroleum gas wholesale, retail |
| **L** | Lubricants, wholesale, retail |
| **w** | wholesale only |
| **r** | retail only |

**■GETTY OIL CO.**
**3810 Wilshire Blvd.**
**P.O. Box 54050**
**Los Angeles, CA 90054**
**Phone: (213) 739-2100**
Key: I; G, D, F, LPG, L
Sub: Getty Refining & Marketing Co.
S. R. Petersen, Chmn. & CEO
R. N. Miller, Pres.

**Getty Refining & Marketing Co.**
**P.O. Box 1650**
**1437 South Boulder**
**Tulsa, OK 74102**
**Phone: (918) 560-6000**
Key: R-M; G-Getty, Skelly, Surfco, Mohawk, D, F-Getty, Skelly, Surfco, Mohawk, LPG, L
Sub. of Getty Oil Co.
Jack D. Jones, Pres.

**Marketing Dept.**
Thomas A. Differ, Senior VP
D. E. Spears, Mgr., Mkt. Planning & Research
L. J. Boyle, Adv. Mgr.

**Petroleum Marketing**
C. R. Lawson, Protects Mgr.
M. F. Convey, Adm. Mgr.

**Eastern Reg.**
**Cherry Hill Executive Campus No. 6**
**Route 70 & Cuthbert Blvd.**
**P.O. Box 5038**
**Cherry Hill, NJ 08034**
**Phone: (609) 662-6900**
Wendell D. Plummer, Reg. Mgr.
D. J. McAleenan, Real Estate Mgr.
A. A. Smith, Wholesale Sales Mgr.
H. S. Pettit, Fuel Oil Sales Mgr.
W. D. Evans, Technical Services Mgr.
J. F. Lake, Administrative Supvr.

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**86 Doremus Ave.**
**P.O. Box 1099**
W. M. Czesnowski, Dist. Mgr.

**Long Island City, NY 11101**
**3023 Greenpoint Ave.**
H. T. Steffen, Dist. Mgr.

**New Haven, CT 06534**
**85 Forbes Ave.**
**P.O. Box 9406**
J. B. Graham, Dist. Mgr.

**Philadelphia, PA 19143**
**49th & Grays Ave.**
C. J. Wolfe, Dist. Mgr.

**Boston Dist. Wellesley, MA. 02181**
**20 William St.**
J. F. Valinote, Dist. Mgr.

**Portland, ME 04104**
**P.O. Box 1590**
J. E. McElroy, Area Mgr.

**Albany, Area**
**49 Riverside Ave.**
**Rensselaer, NY 12144**
J. T. Lank, Area Mgr.

**Central Region**
**1437 So. Boulder**
**P.O. Box 1650**
**Tulsa, OK 74102**
**Phone: (918) 560-6000**
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Wm. A. Hopkins, Field Supv.-Dir. Ret. Div.
R. L. Butcher, Real Estate Mgr.
J. J. Linehan, Ret. Merchandising & Sales Training Mgr.
H. H. Buenemann, Technical Services Mgr.
F. H. Schoeb, Truck Stop & Whlse. Sls. Mgr.
Jack Petty, Wholesale Sales Coord.
K. R. Heaberlin, Adm. Supvr.

**Kansas City Dist.**
**P.O. Box 2936**
**Shawnee Mission, KS 66201**
R. A. Carlson, Dist. Mgr.

**Minneapolis, MN 55420**
**7851 Metro Parkway**
D. W. Evans, Dist. Mgr.

**Des Moines, IA 50322**
**6000 Douglas Ave.**
**P.O. Box 3677**
R. L. Cumings, Dist. Mgr.

**Tulsa, OK 74102**
**912 W. Skelly Dr.**
**P.O. Box 1650**
L. J. Gregus, Dist. Mgr.

**Denver, CO 80201**
**3460 Fox Street**
**P.O. Box 269**
R. R. Irvine, Dist. Mgr.

**Mohawk Region**
**5300 Lennox Ave.-Suite 110**
**P.O. Box 1476**
**Bakersfield, CA 93302**
**Phone: (805) 326-4200**
James W. Lear, Reg. Mgr.
B. T. Clough, Fuel Oil Sales Mgr.
Gene Felcman, Adm. Supvr.
J. P. Lynch, Retail Projects Mgr.
R. J. Means, Wholesale Mktg. Mgr.

**Skelgas Marketing**
**1437 So. Boulder**
**P.O. Box 1650**
**Tulsa, OK 74102**
**Phone: (918) 560-6000**
John L. McPartland, VP
M. E. Wallace, Adm. Services Dir.
H. E. Poland, Marketing Svcs. Dir.
C. L. Coleman, Technical Svcs. Dir.
L. D. Morrill, Skelgro Sales Dir.
A. A. Taranto, Chief Engineer

**Eastern Region**
**3600 Woodview Trace, Suite 100**
**Indianapolis, IN 46268**
B. B. Lewis, Reg. Mgr.

**Southern Reg.**
**1437 S. Boulder**
**P.O. Box 1650**
**Tulsa, OK 74102**
R. E. Anthony, Reg. Mgr.

**■GIANT INDUSTRIES, INC.**
**7227 North 16th Street, Building A**
**Phoenix, AZ 85020**
**Phone: (602) 274-3584**
Key: R-M; G, Fw, D
Divs: Giant Refining Company
  Giant Service Stations
  Giant Off Road Centers
James E. Acridge, Pres. and CEO
Alvis J. Moore, Exec. VP
Robert L. Harvey, VP
Stephen J. Antoi, Treas.
Craig G. Colley, VP
Ronald S. Williams, VP, Retail Opns.

**Giant Refining Co.**
**7227 North 16th Street, Building A**
**Phoenix, AZ 85020**
**Phone: (602) 274-3584**
Earl Blanchard, Vice Pres. Gen. Mgr.
Guy Yates, VP Mktg.
Vince Ontiveros, Mgr. Prod. Sup.
Renee Papin, Marketing Rep.
Jim Saxton, Marketing Mgr.

**Giant Refinery—Ciniza**
**Route 3, Box 7**
**Gallup, NM 87301**
**Phone: (505) 722-3833**
Carl Shook, Opns. Mgr.

**Giant Transportation**
**Route 3, Box 7**
**Gallup, NM 87301**
**Phone: (505) 722-3833**
Jerry Puckett, Mgr.

**Giant Service Stations**
**7227 North 16th Street, Building A**
**Phoenix, AZ 85020**
**Phone: (602) 274-3584**
Terry Crees, Gen. Mgr.
George Armento, Mgr., Goodies Convenience Stores

**Giant Off Road Centers**
**7227 North 16th Street, Building A**
**Phoenix, AZ 85020**
**Phone: (602) 274-3584**
Marvin Worrell, Gen. Mgr.

**■GIBBS OIL CO. (see Astroline Corp.)**

**■GIFFORDS ENERGY CO.**
**58 S. Tyson Ave.**
**Floral Park, NY 11001**
**Phone: (516) 354-5555**
Key: M; Dr, F, Fr
Sub: Dyna Cool Energy Co.
Fred Giffords, Chmn.
Al Taule, Pres.
Ernie Edricks, VP Mktg.
Gus Horvath, VP Fin.
Jerry Dorfman, Sls. Mgr.
Jerry McPhail, Svc. Mgr.
Bob McCanlis, Installation Mgr.
Bob Clark, Purch. Agent
George Russ, Opns. Mgr.

**■GODWIN OIL CO.**
**P.O. Box 1888**
**129 Castle Hayne Rd.**
**Wilmington, NC 28402**
**Phone: (919) 762-0312**
Key: T-M-Texaco; G, F, L, D
E. P. Godwin, III, Pres.
Charles Godwin, VP, Opns. Mgr.
Tom Pearsall, VP, Whlsl. & Indus. Sls.
William C. Godwin, II, Secty-Treas. Mgr., Real Estate
Earl Ward, Off. Mgr.
Irvin Strickland, Credit Mgr.

**■GOLDEN EAGLE REFINING CO.**
**707 Wilshire Blvd., Suite 5200**
**Los Angeles, CA 90017**
**Phone: (213) 624-7841**
Key: R-M; Gw, Dw, Fw
Sub. of Ultramar Co., Ltd.
Joel Mascitelli, VP, Supply & Distrib.
Murray Covert, Gen. Mgr., Gasoline Sls. & Supply
Mike Ayres, Mgr. Ref. Sup.
Burl Freeman, VP Ref.
Lloyd Tracy, Ref., Supt.

**■GOLDEN GATE PETROLEUM CO.**
**220 Powell Street, Suite 750**
**Emeryville, CA 94608**
**Phone: (415) 428-2600**
Key: Prod.-T-M; Gw, Dw, Fw, Lw
Subs: Bay Area Petroleum Co.
  Golden Gate Marine Sales
  Holdener Petroleum Co.
Dennis O'Keefe, Pres. & CEO
Richard C. Dawson, Exec. & Mktg. VP
Chris Price, Gen. Sls. Mgr.

**■GOLDEN IMPERIAL**
**See Rock Island Ref. Corp.**

**■GOLUB CORP.**
**501 Duanesburg Rd.**
**Schenectady, NY 12306**
**Phone: (518) 355-5000**
Key: M; Gr-Chevron, Dr
Lewis Golub, CEO
Neil M. Golub, Pres.
Dave Bronstein, Exec. VP
Simon P. Brennan, VP, Svc. Stas.

**■GO-TANE SERVICE STATIONS**
**949 S. Harlem Ave.**
**Forest Park, IL 60130**
**Phone: (312) 366-3663**
E. V. Silveri

**■GRAMCO, LTD.**
**P.O. Box 108**
**Finnimore, WI 53809 & 0108**
**Phone: (608) 822-3201**
Key: M; Gw, Dw, Fw, L
Paul S. Graham, Pres.
Larry W. Newman, Gen. Mgr. Sls.

**■GREAT RIVER OIL CO.**
**20 Ladue Meadows**
**St. Louis, MO 63141**
**Phone: (314) 567-4852**
Key: M; G, L
Sub: Oklahoma Petroleum Co.
Robert L. Burg, Pres.
R. E. Clark, VP, Mktg.
Irving Dunbinsky, Secty.-Treas.

**■GRESHAM PETROLEUM CO.**
**P.O. Box 270**
**Indianola, MS 38751**
**Phone: (601) 887-2160**
Key: M-Amoco; G, D, F, LPG, L
W. W. Gresham, Jr., Pres. & CEO
W. W. Gresham, III, Mktg. VP & Sec. Treas.
John W. McPherson, Exec. VP
Tom Gresham, Sls. Mgr. & Adv. Mgr.

**■JACK GRIFFITH PETROLEUM PRODUCTS, INC.**
**P.O. Box 1747**
**Stillwater, OK 74076**
**Phone: (405) 372-7665**
Key: M; G, D, Lr
Subs: Gasoline Marketing, Inc.
  Alpine Trucking, Inc.
  Griffith Petroleum Mgmnt. Corp.
Jack A. Griffith, Pres. & CEO
Jim Griffith, Exec. VP COO
David Johnson, Gen. Sls. Mgr.
Stephan T. James, Comptroller

**■GROWMARK, INC.**
**(Formerly FS Services)**
**P.O. Box 2500**
**Bloomington, IL 61701**
**Phone: (309) 557-2419**
Key: M; Gw, Dw, Fw, LPGw, Lw
Kenneth P. Baer, CEO
D. Glenn Webb, Pres.
Kenneth P. Baer, Exec. VP
Marvin L. Weisert, VP Mktg.
John Kelly, Mgr., Petro. Div.
Sam Schriner, Adv. Mgr.

**■GULF CANADA, LTD.**
**130 Adelaide St., West**
**Toronto, Ont. M5H 3R6**
**Phone: (416) 869-8600**
Key: I, G, D, F, LPG, L
Sub. of Gulf Oil Corp. (60.2%)
Subs: Servico Ltd.
  Superior Propane Ltd.
  Commercial Alcohols Ltd.
J. C. Phillips, Q. C., Chmn.
J. L. Stoik, Pres. & CEO
Dr. M. Bregazzi, VP Planning & Devel.
A. R. Sello, Controller
J. R. Tysall, Treas.
E. E. Walker, VP Admin.
W. M. Winterton, VP, Gen. Counsel.
R. T. Brown, Pres., Gulf Canada Products Co.
J. D. DeGrandis, Pres., Chmn. & CEO, Superior Propane Ltd.

**Gulf Canada Products Co.**
**800 Bay St.**
**Toronto, Ont. M5S 1Y8**
**Phone: (416) 927-2500**
R. T. Brown, Pres.
J. D. DeGrandis, Pres., Chmn. & CEO, Superior Propane Ltd.
M. P. Peterson, VP Mktg.
R. W. Hodgson, Dir. Whsle. Mktg.
D. A. Kennett, Dir. Distrib./Mktg.
R. S. Codere, Dir. Automation/Mktg.
V. R. Knox, Dir. Ad. Mktg.
R. E. Scott, Dir. Motorist Mktg.
J. B. Dales, Dir. Eng. Mktg.
R. E. Leveque, Dir. Chemicals & Ref. Sls. Mktg.

**Eastern Mktg. Reg.**
**477 Mt. Pleasant Rd.**
**Toronto, Ont. M4S 2M1**
**Phone: (416) 486-2121**
D. R. Nelson, Reg. Mgr.-E. Canada
E. Tiislar, Mgr. Whsle. Ontario
R. H. McCurdy, Mgr. Motorist Ontario
H. B. Fudge, Mgr.-Eastern Canada
P. Pichette, Mgr. Distrib.-Eastern Canada
R. C. Dupuis, Mgr. Opns., Plnng.-Eastern Canada

**2020 University St.**
**Montreal, Que. H3A 2L4**
**Phone: (514) 284-5111**
M. Gautier, Mgr. Whsle. Quebec & Atlantic
M. Bergeron, Mgr. Motorist Quebec & Atlantic

**Western Mktg. Reg.**
**1122-4th St., SW**
**P.O. Box 4444**
**Calgary, Alta. T2P 2R1**
**Phone: (403) 233-4000**
J. Pantelidis, Reg. Mgr.-Western Canada
L. G. Clay, Mgr., Whsle. Prairie
S. E. Parker, Mgr., Whsle. Pacific
K. G. W. Turner, Mgr. Motorist
A. D. Knights, Mgr., Distrib.
J. F. Briggs, Mgr. Eng.
D. H. Bell, Mgr. Opns./Plnng.

**■GULF OIL CORP.**
**439 Seventh Ave.**
**P.O. Box 1166**
**Pittsburgh, PA 15219**
**Phone: (412) 263-5000**
Key: I; G, D, F, LPG, L
James E. Lee, Chmn. & CEO
Edward B. Walker, 3rd. Pres.
M. J. K. II, Exec. VP

**Gulf Refining and Marketing Co.**
**P.O. Box 2001**
**Houston, TX 77252**
**Phone: (713) 754-2000**
C. H. Bowman, Pres.
C. L. Campbell, Sr. VP-Crude & Trans.
J. E. Smith, Sr. VP Manf.
R. E. Hall, Sr. VP Mktg.
A. R. Larocque, VP, Fuels & Lubes
L. R. Crockett, Gen. Mgr., Strategy & Programs
C. A. Mattei, Gen. Mgr., Natl. Accts.
C. H. Nelson, Gen. Mgr., Supp. & Distrib.
A. W. O'Donnell, VP-Retail Sales
C. R. Wortham, Jr., Gen. Mgr., Retail Coord.
L. G. Walker, VP, Unbranded Sales
M. A. Lawrence, Gen. Mgr., Mktg. Opns.

**Atlanta District**
**P.O. Box 7117, Station C**
**Atlanta, GA 30357-0117**
**(404) 897-7820**
F. T. Odom, Gen. Mgr.

**Dallas District**
**P.O. Box 222808**
**Dallas, TX 75222**
**(214) 699-6600**
W. L. Taylor, Gen. Mgr.

**Houston District**
**P.O. Box 55352**
**Houston, TX 77055**
**(713) 827-4800**
L. H. Brittain, Jr., Gen. Mgr.

**Mid-Atlantic District**
**P.O. Box 2235**
**Baltimore, MD 21203**
**(301) 337-5300**
R. F. Bradley, Gen. Mgr.

**Nashville District**
**P.O. Box 15678**
**Nashville, TN 37215**
**(615) 385-0280**
R. E. Barger, Gen. Mgr.

**New England District**
**P.O. Box 4279**
**East Providence, RI 02914**
**(401) 438-9100**
R. P. Greisler, Gen. Mgr.

**New Orleans District**
**P.O. Box 50282**
**New Orleans, LA 70150**
**(504) 569-6000**
W. G. Crouch, Gen. Mgr.

**New York/New Jersey**
**433 Hackensack Ave.**
**Hackensack, NJ 07601**
**(201) 488-4700**
M. A. Bean, Gen. Mgr.

**Florida District**
**Gulf Refining and Marketing Company**
**P.O. Drawer 38**
**Maitland, FL 32751**
**(305) 629-1898**
A. J. D'Amico, Gen. Mgr.

**Pittsburgh District**
**300 Penn Center Boulevard, Suite 800**
**Pittsburgh, PA 15235**
**(412) 824-9900**
W. J. Berghoff, Gen. Mgr.

**Richmond District**
**P.O. Box 11287**
**Richmond, VA 23230-1287**
**(804) 254-0200**
W. D. Steelman, Gen. Mgr.

**■GULF STATES OIL & REFINING CO.**
**P.O. Box 53137**
**Houston, TX 77052**
**Phone: (713) 751-2000**
Key: I; Gw, Dw, Fw, LPGw
Thomas C. Thompson, Pres. & CEO
John Scott Thompson, VP—Refined Prod.
Tim Mercier, VP

**■GULL INDUSTRIES**
**3404 4th Ave. So.**
**Seattle, WA 98105**
**Phone: (206) 624-5900**
Key: T-M; G, D, F
Cecil True, Jr., Pres. & CEO
Douglas L. True, Exec. VP
William True, Exec. VP
Jack Kreider, VP, Whlsl.
Jeff Scott, VP Retail

**■GUTTMAN OIL CO.**
**200 Speer Rd.**
**Belle Vernon, PA 15012**
**Phone: (412) 483-3533**
Key: M; G, F, D, L
Howard S. Guttman, Chmn.
Alan R. Guttman, Pres.
Maury S. Guttman, Exec. VP
Ralph Antone, VP Sls.
Harvey Davis, VP, Real Estate
Gene Solomon, Branch Mgr.
Richard M. Guttman, VP
Alan H. Sinning, Credit Mgr.
John Weeter, Terminal & Opns. Mgr.

**■HALSTED-QUINN FUEL CO.**
**Div. of Anthony Tarricone, Inc.**
**33 Hubbells Dr.**
**Mt. Kisco, NY 10549**
**Phone: (914) 666-5107**
Bill Nolan, Gen. Mgr.
Nancy Herlihy, Offc. Mgr.
John Egan, LPG Mgr.

**■HAMILTON OIL Co.**
**708 Dermon Bldg.**
**Memphis, TN 38103**
**Phone: (901) 526-2161**
Key: M; Gw, Fw
B. B. Hamilton, Sr., Pres. & CEO
Paula G. Dryden, Corp. Sec., Office Credit Mgr.

**Eastern Div.**
**708 Dermon Bldg.**
**Memphis, TN 38103**

**Western Div.**
**P.O. Box 50029**
**Denton, TX 76206**
**Phone: (817) 565-0849**
W. C. Pinson, Mgr., Western Opns.

**■HANNEY FUEL OIL CO., INC.**
**276 N. Henry St.**
**Brooklyn, NY 11222**
**Phone: (212) 383-4200**
Key: T-M; D, Fr
Thos. F. Hanney, Pres. & CEO
Raymond T. Hanney, Exec. VP

**■HARRIS ENTERPRISES**
**1717 S. Madison**
**Portland, OR 97205**
**Phone: (503) 222-4201**
Key: M; G-Arco, D, F
G. R. Harris, Pres.
Richard T. Harris, VP
David L. Harris, Gen. Sls Mgr.
L. E. Hollenbeck, Mgr., Jobber Sls.
Harold Nelson, Jr., Controller

**■HARRELL PETROLEUM CO.**
**P.O. Box 7699**
**Corpus Christi, TX 78469**
**Phone: (512) 882-8838**
Key: T-M; G, D, L
T. A. Harrell, Jr., CEO
Margaret Waller, Exec. VP
Alex Harris, Pres.
Lee D. Martin, VP Mktg. & Gen. Sls. Mgr.

**■HARTFORD-WOOD RIVER TERMINAL, INC.**
**(Formerly Keller Piasa Terminal, Inc.)**
**P.O. Box 25**
**Hartford, IL 62048**
**Phone: (618) 254-2855**
Key: M; Gw, Dw, Fw
Robert W. Schrimpf, Pres. & CEO
Rex Mowry, Exec. VP

**■HAUCK OIL CO.**
**125 W. Maples St.**
**New Lenox, IL 60451**
**Phone: (815) 485-2112**
Key: M; Fw, Gw
Everett J. Hauck, Pres. & CEO

**■HEATHWOOD OIL CO.**
**2011 N. Tenth St.**
**Kansas City, KS 66104**
**Phone: (913) 321-1764**
Key: T-M-Kerr-McGee, Gw, Fw, Lw
Sub: City Oil Co., Inc.
James W. Shondell, Pres.
Steven Shondell, VP

**■HERBST OIL CO.**
**(Formerly Terrible Herbst, Inc.)**
**5195 Las Vegas Blvd. So.**
**Las Vegas, NE 89119**
**Phone: (702) 798-6400**
Key: T, M; G, D, L
Subs: Herbst Supply, Herbst Enterprises
Jerry Herbst, Pres. & CEO
John Kerley, Exec. VP

**■HIGHLAND PETROLEUM INC.**
**1075 So. Yukon St.**
**P.O. Box 80226-0215**
**Lakewood, CO 80226**
**(303) 987-0820**
Doug Baker, Pres.
Carl Baker, Exec. VP
Steve Baker, Sec. Treas.

**Southern Div.**
**4677 So. 83rd E. Ave.**
**Tulsa, OK 74145**
Carl Baker, VP

**Kentucky & Ohio Dist.**
**611 Buttermilk Pike**
**Crescent Springs, KY 41011**
**Phone: (606) 331-7250**
Jack Borman, Agent

**■HIGHWAY OIL**
**12th Floor First National Tower**
**Topeka, KS 66603**
**Phone: (913) 357-6161**
Key: M; C, D, L
Sub: Hi-Lo Oil Co.
A. B. Hudson & J. M. Hudson, CEOs
Tom G. Platis, Pres.
Eugene H. Meyer, Exec. VP
Paul D. McFann, VP & Sec. Treas.
Sandra J. Crouch, VP
Richard B. Toner, VP
R. J. Gaffney, VP
John Peel, VP Mktg.

**■HILL PETROLEUM CO.**
**1001 Fannin, Suite 1500**
**Houston, TX 77002**
**Phone: (713) 759-6400**
Key: T-M; Gw, Dw
David G. Davidson, Pres.
James M. Bryant, Exec. VP
Paul D. Nelson, VP Fin. Admin.
C. E. Duyess, VP Mktg.
Charles LeMaster, Treas.

**■ANGUS I. HINES**
**1426 Holland Rd.**
**Box 1080**
**Suffolk, VA 23434**
**Phone: (804) 539-2358**
Key: T, M; G, F, D, LPGr, L
Subs: Greenville Transport Co.
  Sentry Petroleum, Inc.
  Central Oil Corp.
  Service Gas Co., Inc.
Angus I. Hines, Jr., Pres.
Robt. L. Story, VP
Larry L. Felton, Sec. Treas.
Douglas I. Phelps, Mgr., Svs. & Fuel Oil Sls.
Lucy E. Parker, Credit Mgr.
T. Oscar Lamb, Opns. Mgr.

**Franklin Oil Co.**
**P.O. Box 57**
**Franklin, VA 23851**
James O. Lindsey, Mgr.

**Central Oil Corp.**
**P.O. Box 587**
**Rocky Mount, VA 24151**
Richard P. Stone, Mgr.

**Central Oil Corp.**
**Gretna, VA 24457**
Mrs. J. W. Johnson, Mgr.

**Sentry Petroleum**
**5539 Faris St.**
**Norfolk, VA 23513**
T. L. Hampton, Mgr.
Donald Pollard, Plant Mgr.

**Service Gas Co.**
**P.O. Box 13**
**Wytheville, VA 24382**
Johnson Crawford Jr., Pres.

**Greensville Transport Co.**
**Box 1080**
**Suffolk, VA 23434**
Thomas V. Arthur, Mgr.

**■HINKLE DISTRIBUTORS**
**P.O. Box 6366**
**Midland, TX 79711**
**Phone: (915) 563-2092**
Key: M; G-Chevron, D, L
Harry Hinkle, Pres. & CEO
Ted R. Bevers, Gen. Mgr.

**■BARNEY HOLLAND OIL CO.**
**2809 N. Main St.**
**Ft. Worth, TX 76106**
**Phone: (817) 626-1962**
Key: M; G-Texaco, D, F, L
J. Walker, Holland, Pres.
Lindsay B. Holland; VP
Barney B. Holland Jr., VP
Priscilla B. Holland, Sec.-Treas.
Luke J. Spavero, Controller
M. E. Downey, Gen. Sls. Mgr.

**■HOLLAND OIL CO.**
**686 E. North St.**
**Akron, OH 44305**
**Phone: (216) 434-4080**
Key: M; G, D, F, L
Charles H. Holland, Pres. & CEO
Carl Hummel, Exec. VP
John Ballard, Mktg. VP

**■HOP-IN-FOOD STORES**
**P.O. Box 260**
**348 Campbell Ave.**
**Roanoke, VA 24002**
**Phone: (703) 982-8460**
Key: M; G, D, F
Sub. of Silverwood Industries, Ltd.
John M. Hudgins, Pres.
John Moticha, Exec. VP Finance

**■HORKEY OIL CO.**
**P.O. Box 2669**
**Lubbock, TX 79408**
**Phone: (806) 765-6681**
Key: M; G-Shell, D, LPG, L
Joe R. Horkey, Pres. & CEO
Eugene Faulkner, VP Mktg.
L. Johnson, Credit Mgr.
Beth Gore, Comptroller

**Horkey LP-Gas Co.**
**dba Plains Gas Co.**
**P.O. Box 5067**
**Lubbock, TX 794117**
Jane Carter, Mgr.

**P.O. Box 447**
**Brownfield, TX**
Odus Walser, Mgr.

**Tank Lines, Inc.**
(Same address as Horkey LP-Gas Co.)

**Petrotex Marketing**
**P.O. Box 10274**
**Midland, TX 79702**
Rip Horkey, Pres. & CEO
Joe R. Horkey, VP

**KEY**

| | |
|---|---|
| **I** | integrated |
| **T** | Transporter |
| **R-M** | Refiner-marketer |
| **M** | Marketer |
| **G** | Gasoline, wholesale, retail |
| **F** | Fuel Oil, wholesale, retail |
| **D** | Diesel, wholesale, retail |
| **LPG** | Liquefied petroleum gas wholesale, retail |
| **L** | Lubricants, wholesale, retail |
| **w** | wholesale only |
| **r** | retail only |

**■HORN DISTRIBUTING CO., INC.**
**P.O. Box 5013**
**Santa Fe, NM 87501**
**Phone: (505) 471-0512**
Key: M; G, D, L
H. N. Wisanteiner, Pres. & CEO
J. W. Sellers, VP, Mktg.

**■HORNET OIL CO.**
**P.O. Box 35347**
**Tulsa, OK 74153**
**Phone: (918) 622-4166**
Key: M; Gr
John Whitaker, Pres.
Bob Watson, VP
June Whitaker, VP

**■HOTCHKISS INDUSTRIES**
**P.O. Box 544**
**Fredericksburg, VA 22401**
**Phone: (703) 373-8000**
Key: Prod.-M; Fw
Charles S. Hotchkiss, Sr., Pres. & CEO
Charles S. Hotchkiss, Jr., Exec. VP
Pauline S. Hotchkiss, Sec. Treas.

**■E. F. HOUGHTON & CO.**
**Madison & Van Buren Aves.**
**Valley Forge, PA 19482**
**Phone: (215) 666-4000**
Key: Prod.-M; Indus. Oils & Chems.
Sub: E. F. Houghton, Canada Inc.
W. F. MacDonald, Jr., Pres. & CEO
A. P. Jarman, VP Sls.
F. H. Whitten, Adv. Mgr.

**■HUB-LANGIE FUEL CORP.**
**P.O. Box 22**
**Rochester, NY 14601**
**Phone: (716) 235-0940**
Key: M; G, F, D, L
Subs: Arnold Oil Corp., Dewey Jackson Co.
William F. Huberlie, Pres. & Treas.
Adolf B. Zuch, Sec.-Controller
Kenneth A. Burchill, Opns. Mgr.

**■HUDSON OIL CO. & AFFILIATED COS.**
**P.O. Box 907**
**Kansas City, MO 64141**
**Phone: (913) 362-4000**
Key: R-M; G, D, F
Mary Hudson, Chmn.
Tom M. Raimo, Pres.
Joyce Hudson Cady, VP Treas.

**■HUGHES OIL CO.**
**Box 1566**
**Daytona Beach, FL 32015**
**Phone: (904) 255-1111**
Key: M; G-Mobil, Phillips, D, F, L
Subs: Hughes Fuel Oil Co.
  Mattick Oil Co.
  Self Service Oil Co.
Reid B. Hughes, Pres. & CEO
Joseph Gentempo, Exec. VP

**■L. M. HUGHEY CO.**
**205 S. Hoover St.**
**Tampa, FL 33609**
**Phone: (813) 870-2323**
Mike Hughey

**■HULL OIL CO.**
**P.O. Box 2266**
**Panama City, FL 32402**
**Phone: (904) 763-1746**
Key: M; G-Hull, D, F-Hull, L
Deck Hull, Pres.
Anne H. Boulnois, Exec. VP

**■HUSKY OIL MARKETING LTD.**
**707 8th Avenue S.W.**
**Calgary, Alberta, Canada T2P 3G7**
**Phone: (403) 298-6111**
Key: I; G, F, L, D, LPG
Sub. of Husky Oil Operations, Ltd.
S. Robert Blair, Chmn.
A. R. Price, Pres.
H. A. Warnock, VP Supply & Distrib. Mktg.
D. R. Ingram, Gen. Mgr. Mktg.

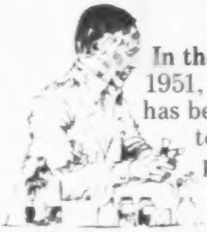
**■HYDROCARBON TRADING & TRANSPORT CO. INC.**
**811 Rusk-Suite 733**
**Houston, TX 77002**
**Phone: (713) 223-1154**
Key: T-M; Gw, D, Fw
Robt. S. Bramlett, Chmn. & CEO
Gerald J. LaBouff, Pres.
Stanley H. Gwinn, VP
Kathy Kremer, VP, Supply & Distrib.

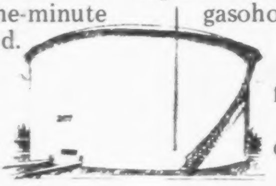
**■IMPERIAL OIL, LTD.**
**111 St. Claire Ave. West**
**Toronto, Ont., M5W 1K3 Canada**
**Phone: (416) 968-4111**
Key: I; G, D, F, LPGw, L
Sub. of Exxon Corp. (69.66%)
Subs: 86129 Canada Ltd
  W. H. Adam, Ltée, Ltd
  Atlas Supply Co. of Canada Ltd
  Building Products of Canada Ltd
  Byron Creek Collieries Ltd
  Canada Wide Mines Ltd
  Champlain Oil Products Ltd
  Delta Rope & Twine Ltd
  Devon Estates Ltd
  E S F Ltd
  Esso of Canada Ltd
  Esso Resources Canada Ltd
  The Imperial Pipe Line Co. Ltd
  Lee Restaurants Le Voyageur
  Maple Leaf Petroleum Limited
  Mongeau & Robert Cie Ltée
  95269 Canada Limited
  Nisku Products Pipe Line Co. Ltd
  Northwest Company, Ltd
  Renown Building Materials Ltd
  Servacar Ltd
  Winnipeg Pipe Line Company Ltd
D. K. McIvor, Chmn. & CEO
A. R. Haynes, Pres.
T. H. Thomson, Sr. VP
W. J. Young, Sr. VP
G. H. Thomson, Pres., Esso Petroleum Canada
M. G. Handford, Exec. VP, Esso Petroleum Canada

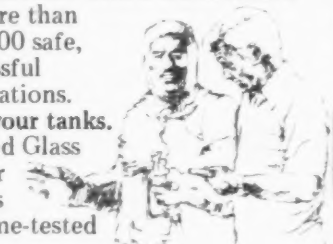
**Atlantic Mktg. Reg.**
**Barrington Tower**
**Scotia Square**
**P.O. Box 220**
**Halifax, Nova Scotia, B3J 2N6 Canada**
P. G. Hollihan, Mktg. Mgr.

**Quebec Mktg. Reg.**
**Tour Esso**
**1981 Ave. McGill College**
**Montreal, Que., H3A 2B2 Canada**
J. M. Bedard, Mktg. Mgr.

**Ontario Mktg. Reg.**
**1 Duncan Mill Road**
**Don Mills, Ont., Canada M3B 1Z2**
A. Bomben, Mktg. Mgr.







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**Pacific Mktg. Reg.**
**475 West Georgia St.**
**Vancouver, B.C., Canada V6M 4M8**
G. R. Wisener, Mktg. and Div. Mgr.

**■INDIANA FARM BUREAU COOPERATIVE ASSN.**
**120 E. Market St.**
**Indianapolis, IN 46204**
**Phone: (317) 631-8361**
Key: I; Gw, Fw, LPGw, Lw
Charles E. Kerber, Pres.
John H. Stearn, Secty.
Philip F. French, Exec. VP
Ronald Stover, Mgr. Pet. Mktg.

**Pipeline & Terminals Div.**
**P.O. Box 277**
**Westfield, IN 46074**
**Phone: (317) 896-2566**
Don Korff, Mgr., Trans.

**Wholesale Sales Div.**
**1200 Refinery Rd.**
**Mt. Vernon, IN 47620**
**Phone: (812) 838-4341**
Val Ward, Purchasing Agent

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**See Stormy Oil Co.**

**■IRVING OIL, LTD.**
**P.O. Box 1421**
**Saint John, New Brunswick, E2L 4K1 Canada**
**Phone: (506) 657-7722**
Key: R-M; G, F, LPG, L
A. L. Irving, Pres.
J. E. Irving, VP Dir.
J. K. Irving, VP

**■J. & L. OIL, INC.**
**204 Rte. 45**
**Vernon Hills, IL 60061**
**Phone: (312) 362-0560**
Key: M; G, D, F, L
Sub: Buy Wright Service Inc.
L. L. Wright, Pres.
G. L. Wright, Exec. VP
Robt. G. Elmore, VP, Mktg.
James G. Bishop, Gen. Sls. Mgr.

**■J S & J SERVICE INC.**
**1013 West Holt Blvd.**
**Ontario, CA 91761**
**Phone: (714) 986-5831**
Key: M; Gr, Dr
Sub: Terminal Stations
Philip Kelber, CEO
Sam Kelber, Pres.
Larry Emchick, VP & Treas.
June Valdez, Opns. Mgr.
Steven Kelber, Sec.

**■JACOBUS CO.**
**2323 N. Mayfair Rd.**
**Milwaukee, WI 53226**
**Phone: (414) 476-0701**
Key: M; G-Cities Service Union, D, F-Quickflash
C. D. Jacobus, Pres. & CEO
K. J. Kuemmel, Sr. VP
J. Suehlek, VP, Retail
H. Powers, VP, Whlsl.

**■JENNEY OIL CO.**
**250 Boylston St.**
**Chestnut Hill, MA 02167**
**Phone: (617) 332-4740**
Key: O
Subs: Boylston Lessors, Inc.
Robert M. Jenney, Pres. & CEO
C. W. Hill, Treas.
William Salem, Clerk

**■JESCO RESOURCES, INC.**
**1437 Gentry St.**
**P.O. Box 12337**
**North Kansas City, MO 64116**
**Phone: (816) 471-4590**
Key: M; Lw
Subs: Jesco of Georgia
Jesco of California
E. R. Howell, Pres. & CEO
Jack Peacock, Gen. Sls. Mgr.
Jim Gilmore, Mgr., Jesco of California
Dale Jones, Mgr., Jesco of Georgia

**■JOHNSON PRODUCTS**
**P.O. Box 1108**
**Lawrence, MA 01842**
**Phone: (617) 685-7200**
Key: M; G, F, D
D. J. Moore, Pres. & Treas.
E. F. Xavier, VP Opns.

**■JONES OIL CO.**
**Box 19**
**Kennett, MO 63857**
**Phone: (314) 888-6705**
Key: M; G, Dw, Lw
Wm. S. Jones, Pres.
Sid Jones, Exec. VP

**■KAIBAB PETROLEUM CO.**
**Box 20506**
**Phoenix, AZ 85036**
**Phone: (602) 840-5555**
Key: M; G, D, L
William Cassel, Pres.
A. V. Steen, VP
W. D. Woodroffe, VP
D. Church, Mgr. Whlsl. Lub.
J. Mosur, Mgr. Whlsl. Lub.

**■KELLAM DISTRIBUTING CO.**
**Accomack County**
**Belle Haven, VA 23306**
**Phone: (804) 442-5811**
Key: T-M-Texaco; G, F, LPG, L, D
Lucius J. Kellam, Chmn.
Lucius J. Kellam, III, Pres.
H. Allen Floyd, Exec. VP Mktg.
E. Polk Kellam, Jr., Sec., Treas.
Stephen A. Storey, VP Fin.
Robert L. Miller, Gen. Mgr. LPG

**■KELLER-PIASA TERMINAL**
**(Name changed to Hartford-Wood River Terminal, Inc.)**

**■KELLETT OIL CO.**
**P.O. Box 889**
**Sikeston, MO 63801**
**Phone: (314) 471-4168**
Key: M; G, D
Don E. Kellett, Pres. & CEO
Sandra Ottinger, Exec. VP

**■KELLEY-WILLIAMSON CO.**
**1132 Harrison Ave.**
**Rockford, IL 61101**
**Phone: (815) 397-9410**
Key: M; G-Mobil, D, F-Mobil, L
Sub: G. W. Corp., Beloit, WI
Dorian Fisher, Pres.
Geo. E. Rolinger, Gen. Sls. Mgr.
John Griffin, C-store Mgr.

**■KENAN OIL CO.**
**Hillsboro Rd.**
**Durham, NC**
**Phone: (919) 383-2541**
Key: M; G, F, LPG, L, D
Sub. of Kenan Properties, Inc.
Sub: Keland Co., Inc.
Frank H. Kenan, Chmn. & CEO
Owen G. Kenan, Pres.
J. H. Mallard, Asst. VP

**■KENT OIL CO.**
**P.O. Box 3902**
**Midland, TX 79702**
**Phone: (915) 563-1620**
Key: M; G-Shell; D
Sub: Kent Lubrication Centers
E. L. Kent, Pres. & CEO
W. B. Kent, Exec. VP
R. C. Snoddy, VP & Gen. Mgr.

**KEY**

| | |
|---|---|
| I | Integrated |
| T | Transporter |
| R-M | Refiner-marketer |
| M | Marketer |
| G | Gasoline, wholesale, retail |
| F | Fuel Oil, wholesale, retail |
| D | Diesel, wholesale, retail |
| LPG | Liquefied petroleum gas wholesale, retail |
| L | Lubricants, wholesale, retail |
| w | wholesale only |
| r | retail only |

**■KERR-MCGEE REFINING CORP.**
**P.O. Box 25861**
**Oklahoma City, OK 73125**
**Phone: (405) 270-1313**
Subs: Cato Oil and Grease Co., Inc.
Southwestern Refining Co., Inc.
Triangle Refineries, Inc.
McClaran Jordan, Pres.
A. R. Gockel, Exec. VP
Morgan Moore, VP Ref.
J. N. Fruits, VP Admin.
G. E. Tiernan, Controller
J. E. Warn, Dir. Plan. & Cocrd.
R. A. Freels, VP
Ralph Jenks, VP
W. W. Young, VP
W. N. Pritchett, VP Mktg.
J. C. McClendon, Gen. Sls. Mgr.
A. W. Babcock, Mgr. TBA and Lube Oil Sls.
H. B. Hopps, Mgr. Asphalt Sales
M. L. Allgeier, Mgr. Fuel Sales
H. E. Burba, Dir. Mktg. Admin.
G. W. Williams, Mgr. Station Opns.
R. A. Owen, Mgr. Prod. Sup. & Distrib.
K. L. Burger, Mgr. Credit Petro. Mktg.
J. R. Jaynes, Mgr. Wholesale Credit
A. H. McKinnon, Mgr. Retail Credit

**Northern Resale Area**
**105 S. E. 45th Street**
**Oklahoma City, OK 73129**
**Phone: (405) 270-2031**
R. L. Huff, Mgr.

**Southern Resale Area**
**105 S. E. 45th Street**
**Oklahoma City, OK 73129**
**Phone: (405) 270-2024**
S. A. Kearney, Mgr.

**Refining Division**
Morgan Moore, VP Ref.
W. E. Ward, Jr., Mgr. Ref. Eng.

**Wynnewood Refinery**
**Box 305**
**Wynnewood, OK 73098**
**Phone: (405) 665-4311**
Walter Bare, Ref. Mgr.
J. T. Rucker, Mgr. Industrial Relations

**Cotton Valley Refinery**
**P.O. Box 97**
**Cotton Valley, LA 71018**
**Phone: (318) 832-4237**
C. E. Dykes, Plant Mgr.

**Southwestern Refining Co., Inc.**
**(A wholly owned subsidiary of Kerr-McGee Refining Corporation)**
**Box 9217**
**Corpus Christi, TX 78408**
**Phone: (512) 884-8863**
McClaran Jordan, Pres.
Morgan Moore, Exec. VP
B. E. Brown, VP Gen. Mgr.
C. A. Steen, VP Admin.
D. R. Oakes, VP Tech.
T. S. Hoover, Mgr. Opns.
Tom Sands, Mgr. Maintenance

**Dubach Gas Processing Plant**
**P.O. Box 68**
**Dubach, LA 71235**
**Phone: (318) 777-3416**
Bill Thacker, Plant Mgr.

**Triangle Refineries, Inc.**
**(A wholly owned subsidiary of Kerr-McGee Refining Corporation)**
**2600 Nottingham**
**Houston, TX 77005**
**P.O. Box 3367**
**Houston, TX 77253**
**Phone: (713) 663-4800**
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Ray A. Freels, Pres.
Lewis H. Albright, VP Terminal Opns.
Harry W. Dudley, VP Chem. Spec. Mktg.
Frank A. Golemi, VP Bus. Develop.
F. B. Henry, Jr., VP Mktg.
W. H. Hutchison, VP Retail Sls.
Bill Thurman, VP Sup. & Distrib.
Fred Capps, Mgr. Whlsle. Sls.
Thurman Esselmeyer, Mgr. Heavy Fuel Oil Sls.
Ron Frisk, Light Prod. Trader
J. E. Haire, Gen. Mgr. Wholesale Sls.
Marlin Larson, Mgr. National Accounts
Charles McComb, Mgr. Credit
G. W. Murray, Mgr. Supply and Trading
E. T. Sabin, Controller
F. R. Walter, Gen. Mgr. Petrochemicals
Jerry D. Willis, Mgr. Mktg. Admin.

**Sales Offices**
**Specialty Products**
**820 Jordan Street, Suite 346**
**Shreveport, LA 71101**
**Phone: (318) 221-2614**
W. W. Jones, Mgr. Spec. Prod.

**Specialty Products**
**1701 Lake Avenue**
**Glenview, IL 60025**
**Phone: (312) 724-7372**
Glen Asauskas, Assoc. Sls. Rep.

**Specialty Products**
**P.O. Box 47427**
**Doraville, GA 30362**
**Phone: (404) 457-5268**
Tony Ostendorf, Assoc. Sls. Rep.

**Wholesale Division Offices**
**Atlanta Division**
**P.O. Box 47427**
**Doraville, GA 30362**
**Phone: (404) 457-5268**
Tom A. Morris, Jr., Div. Mgr.

**Goldsboro Office**
**Mid-Towne Mall, Suite 204**
**200 West Ash Street**
**Greensboro, NC 27530**
**Phone: (919) 731-7722**
Ken Jordan, Senior Sls. Rep.

**Birmingham Division**
**P.O. Box 10625**
**Birmingham, AL 35202**
**Phone: (205) 925-6290**
Sidney D. Smith, Div. Mgr.
Rod Parrish, Sls. Rep.

**Chicago Division**
**1701 Lake Avenue**
**Glenview, IL 60025**
**Phone: (312) 724-7372**
William A. Miles, Div. Mgr.

**Houston Division**
**2600 Nottingham**
**Houston, TX 77005**
**Phone: (713) 663-4905**
Doug Elder, Div. Mgr.

**Indianapolis Division**
**P.O. Box 34177**
**Indianapolis, IN 46234**
**Phone: (317) 291-0430**
Bill Ryser, Div. Mgr.

**Jacksonville Division**
**Box 3171, Station F**
**Jacksonville, FL 32206**
**Phone: (904) 355-8396**
W. H. Reynolds, Div. Mgr.

**Louisville Division**
**P.O. Box 16188**
**Louisville, KY 40216**
**Phone: (502) 447-1030**
Don Hare, Senior Sls. Rep.

**Mobile Division**
**P.O. Box 1546**
**Mobile, AL 36633**
**Phone: (205) 438-4736**
Rudy Hill, Div. Mgr.

**Nashville Division**
**P.O. Box 100433**
**Nashville, TN 37210**
**Phone: (615) 256-2477**
Edgar Hypes, Div. Mgr.
Kyle Britt, Sls. Rep.

**Omaha Division**
**4848 South 120th Street, Suite 415**
**Omaha, NE 68144**
**Phone: (402) 896-0207**
William Farris, Div. Mgr.

**St. Louis Division**
**Drawer A, Mehlville Branch**
**St. Louis, MO 63129**
**Phone: (314) 892-0300**
Chet Fream, Div. Mgr.

**Shreveport Division**
**820 Jordan Street, Suite 346**
**Shreveport, LA 71101**
**Phone: (318) 222-1176**
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Ross Nattin, Sls. Rep.

**Syracuse Division**
**4317 East Genesee St., Room 207**
**DeWitt, NY 13214**
**Phone: (315) 445-0606**
Ron Criss, Senior Sls. Rep.

**Tampa Division**
**1111 North Westshore Blvd.,**
**Suite 509**
**Tampa, FL 33607**
**Phone: (813) 879-6400**
Curtis Hill, Div. Mgr.

**West Coast Division**
**444 West Ocean Blvd., Suite 510**
**Long Beach, CA 90802**
**Phone: (213) 590-8553**
James Caiopoulos, Mgr. West Coast Trading

**Royal Petroleum, A Division of Triangle Refineries, Inc.**
**42-20 Vernon Blvd.**
**Long Island City, NY 11101**
**Phone: (212) 784-6400**
H. F. Presley, Gen. Mgr.
John Dalton, Asst. Gen. Mgr.
R. T. Shields, Mgr. Supply & Distrib.
Jack Baird, Senior Sls. Rep.
Jack Bradley, Senior Sls. Rep.
Jack Kern, Senior Sls. Rep.

**Triangle Terminals**
**Anniston Terminal**
**P.O. Box 3249**
**Oxford, AL 36203**
**Phone: (205) 831-0201**

**Atlanta Terminal**
**P.O. Box 47427**
**Doraville, GA 30362**
**Phone: (404) 457-5268**

**Birmingham Terminal**
**P.O. Box 10625**
**Birmingham, AL 35202**
**Phone: (205) 925-6290**

**Birmingport Terminal**
**Route #2**
**Mulgo, AL 35118**
**Phone: (205) 436-3211**

**Chicago (Bell) Terminal**
**3741 South Pulaski Rd., Hawthorne Station**
**Chicago, IL 60623**
**Phone: (312) 254-2211**

**Chippewa Falls Terminal**
**P.O. Box 307**
**Chippewa Falls, WI 54729**
**Phone: (715) 723-2955**

**Choctaw Point Terminal**
**P.O. Box 1546**
**Mobile, AL 36633**
**Phone: (205) 433-1631**

**Clermont Terminal**
**P.O. Box 34177**
**Indianapolis, IN 46234**
**Phone: (317) 291-0430**

**Jacksonville Terminal**
**P.O. Box 3171, Station F**
**Jacksonville, FL 32206**
**Phone: (904) 355-8396**

**La Grange Terminal**
**P.O. Box 180**
**La Grange, MO 63448**
**Phone: (314) 655-4707**

**Louisville Terminal**
**P.O. Box 16188**
**Louisville, KY 40216**
**Phone: (502) 447-1030**

**Lynn Park Terminal**
**Route #2**
**Cordova, AL 35550**
**Phone: (205) 483-7828**

**McFarland Terminal**
**P.O. Box 464**
**McFarland, WI 53558**
**Phone: (608) 222-3657**

**Mobile Terminal**
**P.O. Box 1546**
**Mobile, AL 36633**
**Phone: (205) 438-4736**

**Nashville Terminal**
**P.O. Box 100433**
**Nashville, TN 37210**
**Phone: (615) 256-2477**

**Niceville Terminal**
**P.O. Box 232**
**Niceville, FL 32578**
**Phone: (904) 678-5159**

**St. Louis Terminal**
**P.O. Drawer A, Mehlville Branch**
**St. Louis, MO 63129**
**Phone: (314) 892-0300**

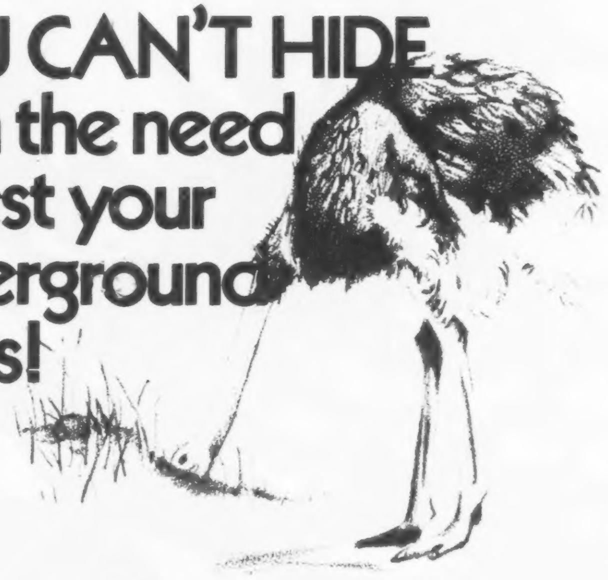
**New Hyde Park Terminal**
**P.O. Box R116**
**New Hyde Park, NY 11040**
**Phone: (516) 354-4545**

**Sewaren Terminal**
**P.O. Box 98**
**Sewaren, NJ 07077**
**Phone: (201) 634-3344**

**Long Island City Terminal**
**42-20 Vernon Boulevard**
**Long Island City, NY 11101**
**Phone: (212) 784-6400**

■**KEY ENERGY ENTERPRISES**
**9250 Bay Plaza Blvd.**
**Suite 320**
**Tampa, FL 33619**
**Phone: (813) 623-5666**
Key: I; G, F, D, L
Subs: Key Petroleum, Inc.
  Key Food Marts, Inc.
  Key Stops, Inc.
B. Mack DeVine, Pres. & CEO
Jerry Lovenworth, Exec. VP
W. M. "Skip" Bordeis, Jr., VP Opns.

■**KICKAPOO OIL CO.**
**215 E. Madison St.**
**Hillsboro, WI 54634**
**Phone: (608) 489-3631**
Key: M; G, L
John Bossbard, Pres. & CEO
David Jenkins, Gen. Mgr.
Geo. Osterhout, Groc. Div. Mgr.
Roger "Buck" Travnick, Flt. Opns. Mgr.



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■**KIMBER-ALLEN PETROLEUM CORP.**
**333 Main Street**
**Madison, NJ 07940**
**Phone: (201) 377-6000**
Key: M; G-Amoco, Citgo, Getty; Gw, Dw, Fw
Subs: Allen Oil Corp.
Allen-Kimber Corp.
Carlton Oil Corp.
Warren S. Kimber, Jr., Pres. & CEO
J. L. DeZerga, VP
Carl Braun Jr., VP

■**KIMBRO OIL CO.**
**2200 Clifton Rd.**
**Nashville, TN 37203**
**Phone: (615) 320-7484**
Key: M; G, D, L
Harlon J. Kimbro, Sr., Pres. & CEO
Harlon J. Kimbro, Jr., Exec. VP
Wm. C. Kimbro, Mktg. VP
D. Scott Kimbro, Treas.

■**KINGSTON OIL SUPPLY CORP.**
**P.O. Box 788**
**Port Ewen, NY 12466**
**Phone: (914) 331-0770**
Key: M; G, F, D, LPGr, L
Subs: Amos Post Inc.
Paramount Oil Corp.
Arthur P. Motzkin, Pres.
Edward J. Weber, Jr., Gen. Mgr.

**Kingston Oil Supply Corp.**
**Box 48**
**Rhinebeck, NY 12572**
Richard Kullmann, Div. Mgr.
C. B. Scism, Svc. Mgr.
Edward J. Weber, Jr., Opns. Mgr.

■**KIRSCHNER BROS. OIL CO.**
**569 W. Lancaster Ave.**
**Haverford, PA 19041**
**Phone: (215) 527-4200**
Key: M; G, F, D, L
Subs: Kirschner Bros. of New Jersey
Michael S. Kirschner, Pres.
Frederick M. Kirschner, Exec. VP
William R. Naylor, Supply Mgr.

■**KITTIE PETROLEUM, INC.**
**155 So. W.W. White Rd.**
**San Antonio, TX 78219**
**Phone: (512) 333-2510**
Key: M; G, D, L
Sub. of River City Corp.

■**KMOCO OIL CO.**
**P.O. Box 40516**
**Grand Junction, CO 81504**
**Phone: (303) 242-0900**
Key: M; G, Fw, D, L
Keith J. Messinger Jr., Pres.

■**KOCH INDUSTRIES, INC.**
**P.O. Box 2256**
**Wichita, KS 67201**
**Phone: (316) 832-5500**
Key: R-M; Gw, Fw, LPGw
Subs: Koch Refining Co.
Koch Marketing Co.
Koch Fuels, Inc.

**Koch Refining Co.**
**P.O. Box 43596**
**St. Paul, MN 55164**
**Phone: (612) 437-0700**
Key: R-M; Gw, Fw, LPGw
W. W. Hanna, Chmn.
B. A. Paulson, Pres.
C. R. Swyers, Exec. VP

**Koch Marketing Co.**
**P.O. Box 2315**
**Wichita, KS 67201**
**Phone: (316) 832-5285**
Subs: Hudson Oil of Dela.
X-Cel Oil Co.
B. G. O Neal, Pres.
Robert K. Michael, VP

**Koch Fuels, Inc.**
**P.O. Box 2256**
**Wichita, KS 67201**
**Phone: (316) 832-5210**
Ronald W. Howell, Pres.
Jack Shaffer, Sr. VP
C. W. Brown, Sr. VP

**Gloucester City**
**P.O. Box 31**
**Gloucester City, NJ 08030**
**Phone: (609) 456-6673**

**Chicago**
**P.O. Box 530396**
**Chicago, IL 60650**
**Phone: (312) 581-4040**

**St. Paul**
**P.O. Box 3218**
**St. Paul, MN 55165**
**Phone: (612) 437-9663**

**Green Bay**
**P.O. Box 307**
**Green Bay, WI 54305**
**Phone: (414) 435-6649**

**Houston**
**1000 Capital National Bank Bldg.**
**Houston, TX 77002**
**Phone: (713) 651-0741**

**Los Angeles**
**1801 Avenue of the Stars**
**Suite 927**
**Century City, CA 90067**
**Phone: (213) 553-6410**

**Elberta**
**P.O. Box 188**
**Elberta, MI 49628**
**Phone: (616) 352-9678**

**Wood River Oil & Ref. Co.**
**P.O. Box 2256**
**Wichita, KS 67201**
**Phone: (316) 832-5210**
Charles R. Swyers, Pres.
Jim Artale, VP, East Coast Reg.
Jack O Brien, VP, Upper Midwest Reg.
Jack Thornton, VP, Gulf Coast Reg.

**St. Paul**
**P.O. Box 3216**
**St. Paul, MN 55165**
**Phone: (612) 437-8400**

**Dubuque Terminal**
**Dubuque Oil Co.**
**P.O. Box 921**
**Dubuque, IA 52001**
**Phone: (319) 582-8883**

■**KOCOLENE OIL CORP.**
**1725 East Tipton St.**
**Seymour, IN 47274**
**Phone: (812) 522-2224**
Robert R. Myers, Pres.
F. Pat Myers, Chmn.
Robert L. Prather, Exec. VP
Gary F. Myers, Sr. VP

■**KRAUSE GENTLE OIL CORP.**
**Box 537**
**Hampton, IA 50441**
**Phone: (515) 456-4703**
Key: M-Kerr-McGee, Derby, D-X, Apco,
Shell; G, F
Subs: Solar Transport
Krause Gentle Oil Corp.
North Iowa Oil Co.
Tri-Iowa Oil Co.
Allison Corp.
T. S. Gentle, Chmn. & Sec.
W. A. Krause, Pres. & CEO
D. D. Van Horn, VP
R. F. Jackson, VP
Keith C. Conover, Controller
T. J. Wollin, Mdse. Mgr.

■**THE KUNZ OIL CO.**
**5200 Eden Circle**
**Edina, MN 55436**
**Phone: (612) 920-9373**
Key: M; G, D
Walter M. Kunz, Jr., Pres.
James E. Ford, VP
Eugene Lovimen, VP
Dirk P. Vogel, Sec. Treas.
Pat Doubek, Sls. Mgr.

■**KWIK SHOP, INC.**
**734 E. 4th**
**Hutchinson, KS 67501**
**Phone: (316) 669-8504**
Key: M; Gr, Dr
Sub. of Dillon Companies Inc.
Robert L. Meyers, Pres.
Gary Pfannenstiel, Mktg. Dir.
Steve Smith, Petroleum Dir.
David Cleeves, Real Estate Dir.
Clifford Dick, Mgr. Petroleum Equip.

■**La GLORIA OIL & GAS CO.**
**P.O. Box 2521**
**Houston, TX 77252**
**Phone: (713) 759-3131**
Key: I; Gw, Dw, Fw, LPw
Sub. of Texas Eastern Corp.
Sub: McMurrey Pipeline
Wayne G. Rolf, Pres.
Robt. T. Blanchard, Exec. VP
L. B. Gatewood, VP, Mktg.
D. W. Worden, Gen. Sls. Mgr.
J. N. Davis, Credit Mgr.

**Houston, TX 77073**
**17724 Hardy Street**
**Phone: (713) 443-7201**
Robert W. Ward, Sls. Supv.

**No. Little Rock, AR 72117**
**P.O. Box 3352**
**Phone: (812) 445-3663**
E. M. McSpadden, Sls. Supv.

**Seymour, IN 47274**
**P.O. Box 401**
**Phone: (501) 945-7115**
C. L. Basil, Sls. Supv.

**Tyler, TX 75701**
**P.O. Box 840**
**Phone: (214) 595-4511**
C. W. Mason, Sls. Supv.

**Mobile, AL 36605**
**Brookley, A.I.C.**
**Phone: (205) 432-9779**
R. L. Pitman, Sls. Supv.

**Scott City, MO 63780**
**P.O. Box 55**
**Phone: (314) 264-4101**
Clifford Selke, Sls. Supv.

■**LAKE SHORE OIL CO.**
**6666 S. Harlem**
**Summit-Argo, IL 60501**
**Phone: (312) 767-7300**
Key: M; G, D, L
Subs: Tri-America Oil, Inc.
John F. Busch, Pres.
Douglas Griffin, Mktg. VP
Richard Kruke, Lube Oil Mgr.

■**LAKESIDE REFINING CO.**
**P.O. Box 909**
**Kalamazoo, MI 49005**
**Phone: (616) 343-1574**
Key: T-R-M; Gw, Fw, Dw
Marvin Fleischman, Pres.
Willis E. Perigo, Exec. VP

■**LAKETON REFINING CORP.**
**P.O. Box 1465**
**Douglasville, GA 30133**
**Phone: (404) 949-9333**
Key: R-M; Fw
Sub. of Southern Independent Oil & Ref. Co.
James P. Young, Pres.
E. G. Schroeder, Exec. VP
John E. McCauley, VP
Joseph P. Rebone, Plant Mgr.

■**LAND O' LAKES**
**P.O. Box 1395**
**800 53rd Ave. NE**
**Minneapolis, MN 55440**
**Phone: (612) 571-2110**
Key: I; G, D, F, LPG, L
Subs: Petroleum Resources, Inc.
Ralph Hofstad, CEO & Pres.
Duane Halvorson, Exec. VP
Don Kirksey, VP Mktg.
Al Giese, VP Supply
Lee Morin, Mktg. Mgr.
Bill Wernimint, Supply Mgr.
Foster Hemstock, Mktg. Mgr. LPG

■**LANDSEA OIL CO.**
**1671 Reynolds Ave.**
**P.O. Box 19603**
**Irvine, CA 92714**
**Phone: (714) 250-0940**
Key: O; Gw
Donald L. Olson Jr., Pres.
Geuy E. Burghoff, Exec. VP
Morse C. Deming, VP Supply Mktg.
Robert Gardner, West Coast Supply Coord.
Terry M. Pinney, Gulf Coast Supply Coord.
David Tracht, VP Terminals Opns.

■**LAWES COAL CO.**
**Sycamore Ave.**
**Shrewsbury, NJ 07701**
**Phone: (201) 741-6300**
Key: M; Gr, Dr, Fr, Lr
Donald E. Lawes, Jr., Pres. & CEO
Donald E. Lawes, III, Exec. VP

■**CARLOS R. LEFFLER**
**Box 278**
**Richland, PA 17087**
**Phone: (717) 866-2105**
Key: T-M-Texaco; G, D, F, L
Carlos R. Leffler, Pres.
John Byler, Exec. VP
Donald Noll, TBA Mgr.
Patrick Castagna, Admin. VP
Robt. Blecker, Mgr. Pet. Prods.
Ammon Martin, Sls. Rep.
Dave Morrisey, Credit Mgr.
Michael Bollinger, Mgr. Opns. & Trans.
Paul Hedin, Lube Eng.

■**LEHIGH PETROLEUM SUPPLY CO. LTD.**
**One Terminal Way**
**Norwick, CT 06360**
**Phone: (203) 889-1311**
Key: T-M; F
Thomas Castle, Pres.
Steven M. Castle, Exec. VP
Peter H. Castle, Secty.

■**J. A. LEONE & SONS**
**296 Broadway**
**P.O. Box 528**
**Lawrence, MA 01842**
**Phone: (617) 687-7101**
Key: M; Fr
Joseph A. Leone, Jr., Pres. & CEO
Joseph A. Leone, III, Gen. Sls. Mgr.
Kenneth A. Leone, Mgr. Retail Sls.
Donald E. Beote, Credit Mgr.

■**LE PAUL OIL CO.**
**P.O. Box 578**
**Troy, OH 45373**
**Phone: (513) 335-5631**
Key: M; G, D
Frank Shapiro

■**LIDO CO. OF NEW ENGLAND**
**New Zealand Rd.**
**Seabrook, NH 03874**
**Phone: (603) 474-5551**
Key: T-M; G, Fr, D, LPGr, L
Carl A. Pescosolido, CEO & Pres.
William B. Pescosolido, VP Gen. Sls. Mgr.

■**LI'L GENERAL STORES**
**5303 So. Macdill Ave.**
**Tampa, FL 33611**
**Phone: (813) 837-1091**
Key: M; Gr
E. Kent Kinard, Pres.
Floyd Simpson, Exec. VP
Robert Ancon, VP Petrol.

■**LITTLE AMERICA REFINING CO.**
**P.O. Box 1529**
**Cheyenne, WY 82001**
**Phone: (307) 634-2771**
Key: R-M; G, F
Affiliated with Holding's Little America Motels
Sub: Sinclair Marketing
R. E. Holding, Pres. & CEO
Homer F. Bruggerman, Exec. VP
Bill Williams, VP Mktg.
L. M. Resink, Mgr. Fuel Oil & Asphalt
Charles Barlow, Controller
Harold Higginson, Gen. Mgr.
Kenneth Y. Knight, Admin. Mgr.

**Sinclair Marketing**
**P.O. Box 31825**
**Salt Lake City, UT 84131**
**Phone: (801) 363-5100**
Key: I; G, Dw, Fw, L
Sub. of Little America Ref. Co.
R. E. Holding, Pres.
R. G. Little, VP
Bob Beard, Mgr. Supply & Distrib.
Keith Kirby, Mgr. Trans.
M. L. Rensink, Mgr. Asphalt Sls.
John T. Gray, Credit Mgr.

■**LUBRIPLATE DIV.**
**FISKE BROTHER'S REFINING CO.**
**129 Lockwood St.**
**Newark, NJ 07105**
**Phone: (201) 589-9150**
Key: P-M; Lw
Fred Snyder, Jr., Pres. & CEO
H. C. Littrell, VP Mktg.-West
J. F. Cusack, VP Mktg.-East, Gen. Sls. & Adv. Mgr.
A. E. Kontak, VP, Gen. Mgr.-Toledo Plant

■**THE LUBRIZOL CORP. FUEL PRODUCTS GROUP**
**29400 Lakeland Blvd.**
**Wickliffe, OH 44092**
**Phone: (216) 943-4200**
Key: O-fuel additives;
Thomas E. Johnston, Dir.
Joseph E. Gross, Sls. Mgr.
Robert C. Tupa, Product Mgr.

■**LYDEN OIL CO.**
**739 Andrews Ave.**
**Youngstown, OH 44501**
**Phone: (216) 744-3118**
Key: M-Amoco; G, D, L
W. G. Lyden, Jr., Pres.
W. G. Lyden, III VP, Toledo Div.
Jim Valicenti, Mgr., Commc'l. Sls.

**■M.F.A. OIL CO.**
**200 So. 7th St.**
**Columbia, MO 65201**
**Phone: (314) 442-0171**
Key: M; G, F, D, LPG, L
Subs: MFA Petroleum Co.
Dale H. Creach, Pres.
J. G. Cunningham, VP Admin.
Paul Dittmer, Asst. VP Opns.
Dwight Alley, Asst. Mktg. Mgr.
William D. Harris, Mgr. LPG Sls.
William Thoms, Acctg. Mgr.
Ron Benne, Credit Mgr.

**M.F.A. Petroleum Co., Mid-South Div.**
**P.O. Box 9216**
**Memphis, TN 38109**
Kent Farmer, Mgr. Mid-South Div.

**■MACMILLAN RING-FREE OIL CO.**
**90 Park Ave.**
**New York, NY 10016**
**Phone: (212) 867-0250**
Key: R-M; Gw, Dw, F, L
Subs: Southern California Refg. Co.
  Waller Petroleum Co.
  Macmillan Petroleum (Arkansas) Inc.
Robert A. Collier, Chmn.
John M. Shaheen, Pres. & CEO
William Soudriette, Sr. VP
L. F. Manno, VP, Mktg.
Jesse Taub, VP
Dominick C. Perla, Brand Mgr.

**Macmillan Petroleum (Arkansas)**
**301 N. Washington Ave.**
**El Dorado, AR 71730**
**Phone: (501) 863-5191**
Joe D. Walk, Sr. VP
Preston Young, Credit Mgr.
William Ricks, Sls. Mgr. Lubr. Prod.
Berry Rabun, Sls. Rep.
J. A. Sturdivant, Ref. Mgr.

**California Div.**
**2365 E. Sepulveda**
**Long Beach, CA 90081**
**Phone: (213) 595-4695**
James H. Lopeman, VP & Gen. Mgr.
Kenneth Clark, Crude Buyer

**Waller Petroleum Co.**
**200 E. Joppa Rd.**
**Towson, MD 21204**
**Phone: (301) 825-6100**
Conrad Boyle, Exec. VP
Paul L. Sansone, Treas.

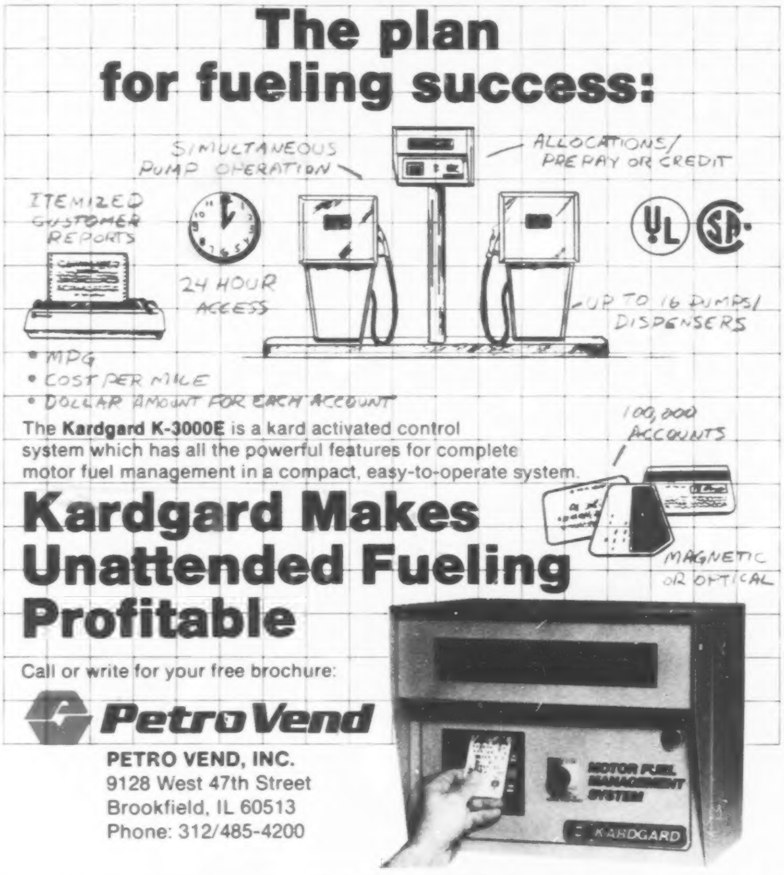
**■MAIN BROS. OIL CO.**
**318 Delaware Ave.**
**Delmar, NY 12054**
**Phone: (518) 439-7605**
Key: M-Citgo; G, D, Fr, L
William Vincent, Pres. & CEO
Clark E. Zeh, Exec. VP and Treas.
Ronald Von Ronne, Sls. Mgr.

**■MAJOR BRANDS DISTRIBUTING**
**600 So Main St.**
**Butte, MT 59701**
**Phone: (406) 723-5419**
Key: T-M; G, D, LPG, L
Subs: Town Pump
Thomas F. Kenneally, Pres.
Kevin J. Kenneally, VP Purch.
Ronald R. Roos, Gen. Mgr.
Daniel J. Kenneally, Opns. Mgr.

**■MANASSAS ICE & FUEL CO.**
**9009 Center Street**
**Manassas, VA 22110**
**Phone: (703) 366-3121**
Key: M; G, F, L
Subs: MIFCO
  Manassas Frozen Foods
Harry J. Parrish, CEO
Harry J. Parrish II, Pres.
Frank J. Parrish, Exec. VP

**KEY**

| | |
|---|---|
| **I** | Integrated |
| **T** | Transporter |
| **R-M** | Refiner-marketer |
| **M** | Marketer |
| **G** | Gasoline, wholesale, retail |
| **F** | Fuel Oil, wholesale, retail |
| **D** | Diesel, wholesale, retail |
| **LPG** | Liquefied petroleum gas wholesale, retail |
| **L** | Lubricants, wholesale, retail |
| **w** | wholesale only |
| **r** | retail only |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(213) 827-9112

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**Memphis, TN 38101**
**Phone: (901) 774-3100**
Key: R; Gw, Fw, Dw
Sub. of Mapco Inc.
R. G. Alexander, VP Ref.
Larry Smith, Admin. Mgr.
L. G. Diehl, Gen. Mgr. Opns.
J. W. Huggins, Eng. Mgr.

**■MARATHON PETROLEUM CO.**
**539 S. Main Street**
**Findley, OH 45840**
**Phone: (419) 422-2121**
Key: R-M; G, F, D, LPGw, Lr
Sub of U.S. Steel Corp.
V. G. Beghini, Pres.
G. N. Nicholson, VP Mktg.
W. E. Lindsey, Pricing & Allocation Mgr.
M. J. Kidd, Mgr., Retail Mktg.
E. S. Markel, Sls. Mgr., Retail Mktg.
G. R. Fisher, Adv. Mgr., Retail Mktg.
A. R. Charnes, Related Mdse. Mgr., Retail Mktg.
H. L. Thomas, Opns. Mgr., Retail Mktg.
R. E. White, Mgr., Whlsl. Mktg.
J. L. Goodhue, Sls. Mgr., Reseller, Whlsl. Mktg.
J. McCaffrey, Coordinating Mgr., Whlsl. Mktg.
S. J. Oakes, Sls. Mgr., Consumer, Whlsl. Mktg.
W. E. Spears, Real Estate Mgr., Whlsl. Mktg.
G. S. Wassum, Mgr., Mktg. Operations
W. J. Martz, Products Supply & Distr. Mgr.
W. E. MacDonald, Lubricants & Svcs. Mgr.
R. E. Lodico, Tech. Svcs. Mgr.
L. McManness, Mktg. Engr. Mgr.
A. J. Moorhead, Term & Transp. Mgr.

**Atlanta, GA 30347**
**1140 Hammond Dr., N.E.**
C. E. Pike, Southern Reg. Mgr., Whlsl. Mktg.

**Park Ridge, IL 60068**
**480 S. Northwest Hwy.**
R. L. Bell, Northern Reg. Mgr., Whlsl. Mktg.

**Southfield, MI 48037**
**26400 Lahser Rd.**
H. W. Collins, Midwest Asphalt Sls. Mgr., Whlsl. Mktg.

**Birmingham, MI 48012**
**2205 Holland Ave.**
C. A. Risser, Mgr., Detroit Fuel Oil Sls., Retail Mktg.

**Champaign, IL 61820**
**505 S. Neil St.**
J. F. Grant, District Mgr., Retail Mktg.

**Columbus, OH 43228**
**4125 Fisher Rd.**
L. E. Marlow, District Mgr., Retail Mktg.

**Southfield, MI 48037**
**26400 Lahser Rd.**
W. T. Slade, District Mgr., Retail Mktg.

**Indianapolis, IN 46224**
**1304 Olin Avenue**
R. W. Povolock, District Mgr., Retail Mktg.

**■MARSHALL OIL CO.**
**P.O. Box 1128**
**Wake Forest, NC 25787**
**Phone: (919) 556-6111**
Key: T-M; G, D
Sub: Wake Auto Parts & Salvage
Kinergy Research & Development
H. K. Marshall, Pres.
E. Worley Massey, Gen. Sls. Mgr.

**■MARTIN OIL MARKETING, LTD.**
**4501 W. 127**
**Alsip, IL 60658**
**Phone: (312) 385-6500**
Key: M-Blending; G, D, F
Affs.: Martin Oil of Indiana, Inc.
Martin 4 Min. Auto Salon, Inc.
Carl C. Greer, Pres. & CEO
J. M. Hamilton, VP Mktg.
J. Kirkland Greer II, VP Supply & Trans.
R. Gene Voyles, VP Ret. Opns.

**■MAUGER & CO.**
**38 Springfield Rd.**
**Aldan, PA 19018**
**Phone: (215) 622-3300**
Key: M-Wm Penn; G, D, F, LPGr, L
Sub: Simpson Oil Corp.
Clyde A. Mauger, Jr., Pres. & CEO
Clyde A. Mauger, III, Exec. VP
Phillip Robinson, Treas.
Michael F. McGowan, Sls. Mgr.

**■McCALL OIL & CHEMICAL CORP.**
**808 S. W. 15th Ave.**
**Portland, OR 97205**
**Phone: (503) 228-2600**
Key: M; G, F, D, L
Subs: Great Western Chemical Co.
Chemax Inc.
Power Plant Engineers
Robert H. McCall, CEO
Charles L. Campbell, Pres.
James Weir, VP Mktg.
Dean A. Prusse, Mgr. Supply & Trans.
Ron D. Vavak, Mgr. Supply & Trans.

**Great Western Chemical Co.**
**Portland Corp. Off.**
**808 S. W. 15th Ave.**
**Portland, OR 97205**
**Phone: (503) 228-2600**
Ernest McCall, Pres.
C. Coop Jones, Dir., Purchasing

**Chemax, Inc.**
**2106 W. 24th**
**Portland, OR 97210**
G. E. Anderson, Mgr.

**■McDOWELL OIL SERVICE**
**223 W. 8th St.**
**Bloomsburg, PA 17815**
**Phone: (717) 784-6691**
Key: M; G-Arco, F
John L. McDowell, III, Pres. & CEO
Larry H. Moss, Gen. Sls. Mgr.

**■McLEIEER OIL**
**1718 E. Michigan**
**P.O. Box 2094**
**Kalamazoo, MI 49003**
**Phone: (616) 343-7677**
Key: M; G, F, D, L
Robert McLeieer, Pres.
Peter Buis, Exec. VP
Forrest Scott, Gen. Sls. Mgr.

**■MEENAN OIL CO.**
**6800 Jericho Tpke.**
**Syosset, NY 11791**
**Phone: (516) 364-9030**
Key: M; G-Mobil, F-Chevron, Mobil, Gulf, Texaco, Exxon, Getty, Sun
Subs: Burke Fuel & Heating Co., Inc.
Canby Oil Co.
Home Comfort Oil Heat
Love Oil Corp.
Petrolube Inc.
Young Supply Co.
Effron Fuel Oil Co.
Paul J. Haight & CO.
Oil Products Inc.
Hudson Valley Petroleum Prod.
Menexco, Inc.
Rediflo Corpot, NJ
Spain Oil Co., Inc.
Divs.: Johnson-Cramer Oil Co.
Christy-Halsey Oil Co.
Jesse E. Terry Co.
Springfield Oil Co.
William F. Kenny, III, Pres.
George Leibowitz, VP-Supp. Dist. & Pres., Menexo
Stanley R. Orczyk, VP-Opns.
Paul A. Vermylen, Jr., VP-Finance & Treas.

**■MERCHANTS OIL**
**105 S. Cherokee St.**
**Denver, CO 80223**
**Phone: (303) 733-4627**
Key: M-Phillips; G, F, D, LPGr, L
Subs: Service Oil Co.
Space Oil CO.
Geo. W. Calkins, Pres.
B. H. Calkins, Exec. VP

**■MERCURY OIL CO.**
**80 Burbank Rd.**
**P.O. Box M**
**Wethersfield, CT 06109**
**Phone: (203) 563-0302**
Key: T-M-Amoco; G, F, L, D
Sub. of Northeast Petroleum, Chelsea MA. (100%) Charter Oil Co.
Yves Bilodeau, Plant Mgr.

**■MERIT OIL CORP.**
**551 W. Lancaster Ave.**
**Haverford, PA 19041**
**Phone: (215) 527-7900**
Key: M; Gr, Dr
Sub. of the Meadville Corp.
Joseph M. Jerome, Pres. & CEO
Ivan H. Gabel, Exec. VP & COO
Leonard E. Gilmar, Sr. VP-Finance & Treas.
Richard E. Pate, VP-Sales
Charles Clayton, Jr., Dir. of Merch. & Prod. Development
S. P. Russo, Real Estate Mgr.
Richard A. Lucas, Merchandising & Training Mgr.
Morton Craine, Asst. Sec. & Counsel
James F. Parsons, Controller & Asst. Treas.
Robert M. Harting, Personnel & Public Affairs Mgr. Asst. to Pres.
S. Kirtland Bass, Supply & Distrib. Mgr.
Dominick DeBenedictis, Engineering Mgr.

**New England Div.**
**274 Main St.**
**Reading, MA 01867**
**Phone: (617) 942-1096**
C. Leon Carruthers, Div. Mgr.
Robert Williams, Sls. Mgr.

**New York Div.**
**14 Front St.**
**Hempstead, NY 11550**
**Phone: (516) 292-1000**
George Steininger, Div. Mgr.
Charles Blanchet, Sls. Mgr.
Gary R. Jerome, Sls. Mgr.

**Mid-Atlantic Div.**
**551 West Lancaster Ave.**
**Haverford, PA 19041**
**Phone: (215) 527-7900**
William L. Kahn, Jr., Div. Mgr.
James W. Larzelere, Sls. Mgr.

**■MERRITT TRAUX**
**205 Columbia St., N. E.**
**Salem, OR 97303**
**Phone: (503) 588-0455**
Key: T-M; G, D, F, L
Michael Traux, Pres.
Peter F. Meyer, Gen. Mgr.
Paul Farrell, Gen. Sls. Mgr.
James Wechter, Controller
Dianne Munley, Credit Mgr.
Gilbert Wood, Trans. Mgr.
Dave Embertson, Off. Mgr.

**Columbia Sales**
**205 Columbia St., N. E.**
**Salem, OR 97303**
Jim Ahmed, Gen. Mgr.

**■MICO OIL CO.**
**P.O. Box 2423**
**Shawnee Mission, KS 66201**
**Phone: (913) 236-4142**
Key: M; Gr-Mico
M. W. Hudson, Pres. & CEO
Jerald A. Klinock, Exec. VP
William J. Peebles, VP
Mike Smittle, Secty., Treas.

**■MID CONTINENT SYSTEMS, INC.**
**310 Mid Continent Plaza**
**P.O. Box 1370**
**West Memphis, AR 72301**
**Phone: (501) 735-4295**
Key: I; G-M.C., D, F-M.C., LPG, L
Subs: U-Serv Petroleum
Brownsville Truck Stop, Inc.
Mid Continent Inns, Inc.
D. G. Seago, Jr., CEO
Tom Lawhorn, Senior VP
Robert Craig, VP, Retail Sales Div.
Garry Kyzar, Gen. Sls. Mgr.
Marvin Shoemake, Adv. Mgr.

**■MIDLAND COOPERATIVES INC.**
**(See Land O Lakes)**

**■MID-MISSOURI OIL CO.**
**P.O. Box 167**
**Eldon, Mo 65026**
**Phone: (314) 392-5231**
Key: M-Shell; G, D, L
Clark F. Houghton, Pres.
Wayne Compton, VP

**■MID-STATES PETROLEUM**
**2146 Livernois Ave.**
**Troy, MI 48084**
**Phone: (313) 528-3577**
Key: T-M; G-Union, Total, Independent, D, F-Union, Total, Independent, L
Subs: Capitol City Oil Co.
Markline Oil Co.
Spade Fuel Oil & Supply
Save-U Stations, Inc.
R. H. Butler, Jr., Pres. & CEO
J. M. Butler, Exec. VP
H. P. Butler, VP Mktg.
F. E. Hutton, Gen. Sls. Mgr.
J. J. Hester, Supply/Distrib. Mgr.
B. R. Hardin, Opns. Mgr.

**■MIDWEST PETROLEUM CO.**
**6760 Southwest**
**St. Louis, MO 63143**
**Phone: (314) 647-5550**
Key: M; G, D, L
Sub: Bolch Oil Co.
Louis M. Levin, Pres.
Bud Levin, Exec. VP, Mktg.
Bill Hopkins, Gen. Sls. Mgr., Trans. Mgr.
Lee Goddard, Opns. Mgr.

**■MILDER OIL CO., INC.**
**26th & Dorcas, Box 3707**
**Omaha, NE 68103**
**Phone: (402) 342-2111**
Key: M; Gw, F, Dw
Myron (Mike) Milder, CEO
Thomas F. Bird, Gen. Mgr.
Thomas Durcell, Mktg.

**■MILLER ENTERPRISES INC. D/B/A**
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**Crescent City, FL 32012**
**Phone: (904) 698-1280**
George C. Miller, Jr., CEO Chmn.
Thomas A. Miller, Pres. & COO
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**■MILLER & HOLMES**
**501 Lafayette Rd.**
**St. Paul, MN 55101**
**Phone: (612) 224-5874**
Key: M; Gr, Dw, Fw
Gerald T. Peterson, Pres.
Anthony W. Homes, VP
Berton M. Kettler, VP

**■MILLER OIL CO.**
**150 S. Main St.**
**Norfolk, VA 23523**
**Phone: (804) 543-5751**
Key: M; G, F, D, L
A. C. Miller, Pres. & CEO
J. G. Miller, Sls. Mgr.

**■MILLER OIL CO.**
**1033 South Ave.**
**Toledo, OH 43609**
**Phone: (419) 243-8111**
Key: T-M; G, F, D, L
Ross E. Miller, Owner
William L. Berry, Gen. Mgr.
Kenneth E. Stewart, Spvsr.
Robert Welsheimer, Ret. Sls. Mgr.

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**(now United Marketing Co.)**

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**3854 S. 1st Street**
**St. Louis, MO 63118**
**Phone: (314) 752-5850**
Key: M; G, L
Floyd C. Warmann, Pres.
Gene A. Warmann, VP
Robert Cavin, Whlsl. Sls. Mgr.

**■MOBIL CORP.**
**150 E. 42nd St.**
**New York, NY 10017**
**Phone: (212) 883-4242**
Rawleigh Warner, Jr., Chmn. & CEO
William P. Tavoulareas, Pres.

**Mobil Oil Corp.**
**150 E. 42nd St.**
**New York, NY 10017**
**Phone: (212) 883-4242**
Allen E. Murray, Pres.

**Mobil Oil Corp.**
**Marketing & Refining Division**
**150 E. 42nd St.**
**New York, NY 10017**
**Phone: (212) 883-4242**
P. J. Hoenmans, Pres.

**Mobil Oil Corp.**
**U.S. Marketing & Refining Division**
**3225 Gallows Rd.**
**Fairfax, VA 22037**
**Phone: (703) 849-3000**
Key: I, G, D, F, L
R. G. Weeks, Exec. VP
U.S. Marketing listed below
J. B. Hinton, VP & Gen. Mgr., Mktg.
H. Hokamp, Gen. Mgr., Resale
P. E. J. Engel, Mgr., Retail
H. J. Gulbrandsen, Mgr., Whlsl.
R. J. McCool, Gen. Mgr., Lube & Comm. Bus.
G. A. Gruber, Mgr., Lube Tech. Svc.
G. D. Madden, Mgr., Lube & Comm. Sls.
J. E. McKeever, Gen. Mgr., Opns.
K. C. Esty, Gen. Mgr., Mktg. Svcs.
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W. D. Manz, Gen. Mgr., Planning & Financial Analysis

**Eastern Resale Region**
**#10 Executive Mall-Bldg.**
**Valley Forge, PA 19482**
H. E. Dransfield, Gen. Mgr.
T. B. Newman, Resale Sls. Mgr.

**Central Resale Region**
**600 Woodfield Drive**
**Schaumburg, IL 60196**
R. W. Laughton, Gen. Mgr.
M. D. FitzWilliam, Resale Sls. Mgr.

**Western Resale Region**
**612 S. Flower St.**
**Los Angeles, CA 90017**
R. J. Niermeyer, Gen. Mgr.
M. D. DiMezza, Resale Sls. Mgr.

**Headquarters Comm. Sales**
**3225 Gallows Road**
**Fairfax, VA 22037**
C. W. Frisby, Mgr.

**Resale Lubes**
**3225 Gallows Road**
**Fairfax, VA 22037**
E. D. Bryant, Mgr.

**Northern Comm. Region**
**600 Woodfield Drive**
**Schaumburg, IL 60196**
K. R. Fernlund, Region Mgr.

**Southern/Western Comm. Region**
**5151 Beltline Road**
**Suite 600**
**Dallas, TX 75240**
I. W. Jordan, Region Mgr.

**■MOHAWK OIL CO. LTD.**
**The Mohawk Bldg.**
**325-6400 Roberts St.**
**Burnaby, B. C. V5G 4G2**
**Phone: (604) 299-7244**
Key: I, M; G, D, LPG, L
Sub. of Mohawk Oil Canada Ltd.
Subs: Payless Oil Co. Ltd.
MacDonald Fuel Products Ltd.
Donald G. Skagan, Pres.
Malcolm A. Christie, Sr. VP Mktg.
Donald M. Stuart, VP Mktg. Svcs.
Gary Cartwright, Reg. Mgr. Pacific
J. Punch, Gen. Mgr. Prairie Region

**Prince George**
**P.O. Box 1870**
**Prince George, B. C.**
**Phone: (604) 962-8414**

**Kamloops:**
**112 Whiteshield Crescent**
**Kamloops, B. C. V2E 1H1**
**Phone: (604) 372-5416**

**Nanaimo:**
**3412 Littleford Rd.**
**Nanaimo, B.C. V9G 4E2**
**Phone: (604) 758-0746**

**Calgary:**
**Bow Valley Square III**
**255 5th St. S. W.**
**Calgary, Alberta T2P 3G6**
**Phone: (403) 265-3600**

**Calgary:**
**#210-7220 Fisher Street S. E.**
**Calgary, Alberta T2H 2H8**
**Phone: (403) 252-3361**

**Calgary:**
**7121 Fairmount Dr., S. E.**
**Calgary, Alberta T2H 0X6**
**Phone: (403) 252-3361**

**Saskatoon:**
**205 Central Ave.**
**Saskatoon, Saskatchewan S7N 2E8**
**Phone: (306) 374-6834**

**Winnipeg:**
**275 Holden Ave.**
**Winnipeg, Manitoba R2J 0J3**
**Phone: (204) 233-0451**

**Edmonton:**
**Parkway Village**
**Suite 200**
**8170 50th St.**
**Edmonton, Alberta T6B 1E6**

**■MONARCH OIL & SUPPLY CO.**
**P.O. Box M800**
**Gary, IN 46401**
**Phone: (219) 886-9216**
Key: M; G, D, F, L
Robert B. Bailey, Pres. & CEO
F. T. Stinson, VP & Opns. Mgr.
C. Martinie, TBA Mgr.

**■MOORE & MUNGER**
**140 Sherman St.**
**Fairfield, CT 06430**
**Phone: (203) 259-7861**
Key: I; Dw, Fw, Lw
Subs: Charles J. Wood Pet. Co.
Cross Oil & Refg. Co.
Cross Development Co.
S. T. Van Esselstyn, Chmn.
David A. Rosow, Pres. & CEO
Victor C. Braun, Group VP Ref.
Wayne G. Granquist, Group VP Prod.
A. W. "Bill" Clinger, VP Mktg.
Harry M. Farnham, VP Res.
Henry L. Levkoff, Asst. to Pres.

**Cross Oil & Refining Co. of Arkansas**
**P.O. Box 105**
**Smackover, AR 77162**
**Phone: (501) 725-3611**
N. P. "Bud" Hudson, Sr. VP
Denny McConathy, VP & Gen. Mgr.

**■E. L. MORGAN CO.**
**512 E. Main**
**P.O. Box 1545**
**Jackson, TN 38302**
**Phone: (901) 424-3545**
Key: T-M-Chevron; G, D, Fw, L
John E. McCutchen, Pres. & CEO
Mrs. Kate D. Morgan, VP
Joe Cheatham, Mgr., Retail Sls.
Clois Hill, Opns. Mgr.

**KEY**

| | |
|---|---|
| I | Integrated |
| T | Transporter |
| R-M | Refiner-marketer |
| M | Marketer |
| G | Gasoline, wholesale, retail |
| F | Fuel Oil, wholesale, retail |
| D | Diesel, wholesale, retail |
| LPG | Liquefied petroleum gas wholesale, retail |
| L | Lubricants, wholesale, retail |
| w | wholesale only |
| r | retail only |

**■MUNFORD, INC.**
**1860-74 Peachtree Road, N.W.**
**P.O. Box 7701-Station C.**
**Atlanta, GA 30357**
**Phone: (404) 352-6641**
Key: M; Gr, Dr
Subs: Majik Market Convenience Stores
World Bazaar Import Stores
Dillard Munford, Chmn. & CEO
Russell C. Fellows, Pres. & COO
James M. Carroll, Exec. VP-Finance
Hiram F. Griffies, Exec. VP-Opns.
Joseph W. Harding, VP Treas.
Jay F. Rubel, VP, Admin.
Mark Ploss, Controller, Majik Markets
David Miles, Construction Mgr.
Woody McFarlin, Director of Petroleum Opns.
Ron Floyd, VP Mktg.
Bill Schwartz, VP Personnel
Bob Erisman, Advertising Mgr.

**Tampa Region:**
**315 S. Parsons Ave.**
**Brandon, FL 33511**
**Phone: (813) 685-2981**
Richard Garner, VP
Morris Costello, Sls. Director
Dave Dickmeyer, Sls. Mgr.

**Nashville Region:**
**1100-A Tuckahoe Drive**
**Nashville, TN 37207**
**Phone: (615) 868-8334**
Hillman Cagel, VP
Ron Barton, Sls. Director
Oliver Jones, Sls. Mgr.

**Atlanta Region:**
**2467 Windy Hill Road**
**Marietta, GA 37207**
**Phone: (404) 952-4442**
Randy Tipmore, VP
Elton Cannady, Sls. Director
Marty Williams, Sls. Mgr.

**Pensacola Region:**
**4298 Bonway Dr.**
**Pensacola, FL 32504**
**Phone: (904) 476-6560**
Joe Nicholson, VP
Dwight Whitlow, Sls. Director
Dennis Nelson, Sls. Mgr.

**Central Region:**
**1860-74 Peachtree Rd., NW**
**P.O. Box 7701-Station C.**
**Atlanta, GA 30357**
Jim Livingston, VP
Fred Mulford, Sls. Director
Ralph White, Sls. Mgr.

**■MURPHY OIL USA, INC.**
**200 Peach Street**
**El Dorado, AR 71730**
**Phone: (501) 862-6411**
Key: I; G-Spur, D, F-Spur, LPGw, Lw
Subs: Murphy Oil Co., Ltd.
Murphy Eastern Oil Co.
Ocean Drilling and Exploration Co.
Charles H. Murphy, Jr., Chmn.
Robert J. Sweeney, Pres., CEO
Jack W. McNutt, Exec. VP
John L. Solomon, VP, Mktg.
Paul C. Bilger, VP, Mfg.
Jack W. Brewer, Sls. Mgr.
John F. Crowley, Mgr., Prod. Supply & Distribution
Frankie L. Sayers, Prod. Supply Mgr. (Southern Reg.)
Graydon T. Simmons, Prod. Supply Mgr. (Northern Reg.)
Frank E. Massey, Mgr., Terminal Opns.
T. M. Murphy, Mgr., Mktg. Svcs.
Bob J. Thompson, Credit Mgr.

**Memphis, TN Reg.**
**5864 Ridgeway Pkwy.**
**Suite 216**
**Phone: (901) 761-2810**
J. Maurice Peel, Mgr.

**Atlanta, GA Reg.**
**1831 Independence Square**
**P.O. Box 888303**
**Dunwoody, GA 30338**
John E. Darby, Mgr.

**Minneapolis, MN Reg.**
**4600 West 77th St.**
**Suite 304**
**Phone: (612) 835-3611**
James F. Rawlings, Mgr.

**Spur Oil Co. Ltd.**
**P.O. Box 499**
**One Westmount Square**
**Montreal, Que. H3Z 2Z8**
**Phone: (514) 931-8292**
Key: T-M; G-Spur, D, F-Spur, L
Sub. of Murphy Oil Co., LTD.
R. Farquharson, CEO
N. Di Tomaso, Pres.
F. G. Archambault, VP, Mktg.
B. A. Bastien, Reseller Sls. Mgr.
A. Paliotti, Ret. Sls. Mgr.
J. H. McElligott, Real Estate Administrator
A. W. Grant, Mgr., Logistics
R. J. Couvillion, Controller

**■MUSKET CORP.**
**P.O. Box 26210**
**Oklahoma City, OK 73120**
**Phone: (405) 751-9000**
Key: M; G, D, Lr
Subs: Love's Country Stores
High Plains Development Corp.
Mesa Verde Development
Tom E. Love, Pres. & CEO
Larry Dillard, VP Opns.
Jim R. Rager, VP Finance
Windell Pearson, Real Estate Mgr.
Martin Ruff, Construction Mgr.
Terry Ross, Motor Fuels Mgr.

**■NATIONAL CONVENIENCE STORES**
**P.O. Box 758**
**100 Waugh Dr.**
**Houston, TX 77007**
**Phone: (713) 863-2200**
Key: M; Gr, Dr, Lr
V. H. Van Horn, Pres.
Tom Ewens, Exec. VP
Jerry Welch, Exec. VP
Robert Chromosta, Gasoline Opns. Mgr.

**■NATIONAL COOPERATIVE REFINERY ASSN. (CENEX)**
**P.O. Box 1404**
**McPherson, KS 67460**
**Phone: (316) 241-2340**
Key: I; Supplies products to owner companies only; Gw, Dw, Fw, LPGw
Owned by: Farmland Industries, Inc., Kansas City, MO
Farmers Union Central Exch. (CENEX), St. Paul, MN
Growmark, Inc., Bloomington, IL
Land O'Lakes, Inc., Minneapolis, MN
MFA Oil Co., Columbia, MO
Larry E. Williams, Pres. & CEO
R. A. (Ron) Berke, VP, Supply & Trans.
C. W. McNaul, Distr. Mgr.
Melvin Bergen, Prods. Invoice Supvr.
Clyde Olson, LPG Coord.

**■NATIONAL OIL & GAS**
**P.O. Box 476**
**Bluffton, IN 46714**
**Phone: (219) 824-2220**
Key: M; G, F, D, L
Subs: National E & R National Oil Corp.
J. D. Kipfer, Controller & CEO
Wm. Moser, Pres.
Wm. Gene Moser, Exec. VP
Ed Alberding, Gen. Sls. Mgr.

**■NATIONAL PETROLEUM SALES**
**3105 E. Skelly Dr.**
**Tulsa, OK 75105**
**Phone: (918) 749-7741**
Key: M; Gw, Fw, Dw, Lw
John Neas, Pres.
W. Carl Wing, VP Contr.
David C. Punnett, Mgr. Supply & Distrib.
J. R. Owens, Mgr. Waterborne Supply & Distrib.
Wally Hawthorne, Mgr. Trans.

**■NAVAJO REFINING CO.**
**P.O. Drawer 159**
**Artesia, NM 88210**
**Phone: (505) 748-3311**
Key: R-M; Gw, Dw, Fw, LPGw
Sub. of Holly Corp.
Jack P. Reid, Pres.
W. J. Gray, Gen. Sr. VP Mktg. & Supp.
Gordon Bussey, VP Mktg.

**■NEAL, INC.**
**1330 Gembler Rd.**
**P.O. Box 20427**
**San Antonio, TX 78220**
**Phone: (512) 337-8490**
Key: M; Gr-Fina, Dr
H. Doak Neal, Pres. & CEO
H. D. Neal, Exec. VP

**■NEWELL OIL CO.**
**Box 390**
**Alpine, TX 79831**
**Phone: (915) 837-3322**
Key: T-M; G-Gulf D, F-Gulf, L
Lee Cowell, Pres. & CEO

**■NEWHALL REFINING CO.**
**P.O. Box 938**
**Newhall, CA 91322**
**Phone: (805) 259-2660**
Key: R-M; Gw, Dw, Fw
Sub. of Pauley Petroleum Co.
R. J. Kerr, Pres.
K. T. Kenny, Sr. VP Mktg.
H. J. Mangold, VP, Mfg.

**■NEW LENOX GAS & OIL CO.**
**125 West Maple St.**
**New Lenox, IL 60451**
**Phone: (815) 485-2112**
Sheldon Hauck

**■NOCO ENERGY CORP.**
**P.O. Box 86**
**Tonawanda, NY 14151-0086**
**Phone: (716) 874-6200**
Key: M, O-processor; G, F, D, L
Donald F. Newman, Chmn.
Reginald B. Newman II, Pres.
Douglas A. Bradt, VP Indus. Fuel Oil Mktg.
William Bingham, Mgr. Natl. Accts.
Davied Colosimo, Trans. Fuel Mkt.
Gary G. Roesch, Opns. Mgr.
Tim Hartnett, Service Station Supvr.
Patricia A. McCord, Secty.
Ken Vaughn, Home Heat Gen. Mgr.
Robert L. Newman, Mgr. Info. Svcs.

**■NORTHEAST PETROLEUM CORP.**
**(Acquired by Charter Oil Co. in 1983).**

**■NORTHVILLE INDUSTRIES CORP.**
**35 Pinelawn Road**
**Melville, NY 11747**
**Phone: (516) 293-4700 & (212) 591-1400**
Key: T-M; G, Fw, Dw
Sub: Northville Dock Pipeline Corp.
  Northville Consolidated Corp.
  Northville Linden Terminal Corp.
  Bonaire Petroleum Corp.
  Petroterminal de Panama, S.A.
  Pelican Terminal Corp.
Harold P. Bernstein, Chmn.
Raymond Bernstein, Pres.
Jay Bernstein, Exec. VP
R. D. Zelek, VP Reg. Sls.
Gary W. Druckenmiller, VP Terminalling
Earl Espeland, Mgr., Terminal Opns.
Marge Tschiember, P.R. Div.

**■OASIS PETROLEUM CORP.**
**5901 Green Valley Circle**
**Culver City, CA 90230**
**Phone: (213) 642-0100**
Key: T-M; G, D, Fw
Subs: AgriFuels Inc.
  Oasis Petroleum Corp.
Paramount Petrol.
Finn Moller, Pres. & CEO
Assam Khashoggi, Dir.
Parker Anderson, Exec. VP & Gen. Mgr.
W. J. Francis, Exec. Assistant to the Pres.

**■OIL SERVICE CORP.**
**200 Boylston St.**
**Chestnut Hill, MA 02167**
**Phone: (617) 332-8330**
Key: M; Gw, Dw, Fw
Sub. of First Petroleum Corp.
Alfred Slifka, Pres.
Paul J. Harwood, VP & Gen. Mgr.
Richard O. Knox, VP, Mktg.

**■OILS, INC. PETROLEUM GROUP**
**300 W. Washington St.**
**Chicago, IL 60606**
**Phone: (312) 236-6300**
Key: T-M; G, D, F, L
Sub. of Henry Crown Co.
Sub: Stickney Terminal Corp.
  Oils, Inc./Houston
  W. H. Barber Co.
Byron S. Weil, Pres. & CEO
Mariclaire Stubbs, Asst. to Pres.
Neele Stearns, Exec. VP
Jim Bender, Sls. Mgr.

**Oils, Inc./Houston**
**652 E. North Belt**
**Houston, TX 77060**
**Phone: (713) 999-5353**
Don Ball, Mgr., Gulf Coast

**Stickney Terminal Corp.**
**4100 S. Laramie**
**Cicero, IL 60650**
**Phone: (312) 242-3378**
Patricia Poplawski, Mgr. Supply (OILS, Inc.)

**W. H. Barber Co.**
**3650 S. Homan Ave.**
**Chicago, IL 60632**
**Phone: (312) 523-0250**
Key: M, L
Jim Bender, Sls. Mgr.
Tom Knet, Chemist
Bob Driscoll, Plant Mgr.

**■OPERATORS HEAT, INC.**
**1601 W. 41st St.**
**Baltimore, MD 21211**
**Phone: (301) 467-6000**
Key: M; D, F-Orange
J. Hollis B. Albert, Chmn.
J. Hollis B. Albert, Jr., Pres.
William Bass, Jr., Gen. Sls. Mgr.
J. Hollis B. Albert III, Secty.

**Lawn Spray Div.**
Thomas Shields, Mgr.

**Permanent Tank Bottom Div.**
J. Hollis B. Albert

**Fire Starter Div.**
J. Hollis B. Albert, Jr.

**■ORLEANS OIL CO.**
**P.O. Box 51817**
**Lafayette, LA 70505**
**Phone: (318) 234-2357**
Key: T-M; G-Phillips "66", D
Mrs. Mary Louise Pickrell, Chmn., Pres.
Mr. Thomas L. Pickrell, VP, Gen. Mgr.
June Cummings, Sec.-Treas., VP Admin. VP Mktg.
Scott Goins, Opns. Mgr.

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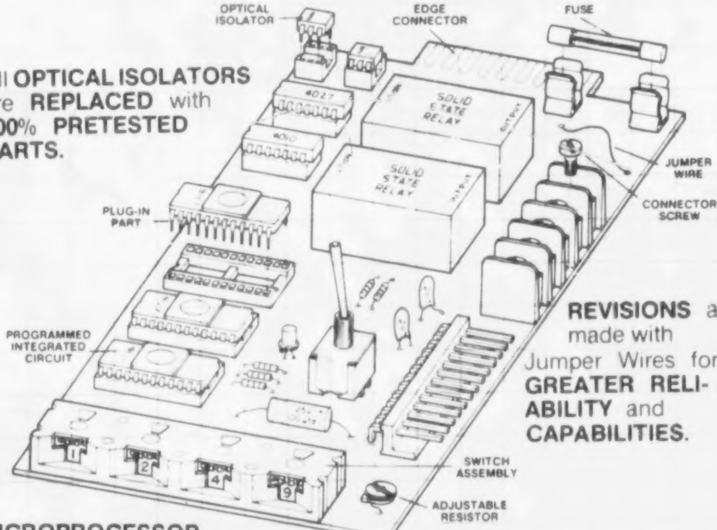

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Key: Prod.-T-M; G, D, L
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C. Dwain Carnes, Pres.
Jack B. Haley, Exec. VP
E. R. Callison, Mktg. VP
C. H. Richardson, Crude Oil Purchasing, VP

■ **OSCEOLA REFINING CO.**
**P.O. Box 517**
**West Branch, MI 48661**
**Phone: (517) 345-3500**
Key: M; Gr, Dr
Sub. of Texas American Oil Corp.
William Judd, Pres.
R. J. Shoemaker, Exec. VP

■ **PACER OIL CO.**
**1430 South Utica**
**Tulsa, OK 74145**
**Phone: (918) 585-9200**
Key: M; G, D, L
Robert Parker, Pres. & CEO
Francine Parker, Exec. VP
Fred Wick, VP

■ **PACIFIC NORTHERN OIL CORP.**
**1100 Olive Way, Suite 1800**
**Seattle, WA 98101**
**Phone: (206) 382-9777**
Key: M; G, Dw, Fw, L
R. Bruce Merrell, Pres. & CEO
Scott H. Clark, & Dale J. Trapp, Exec. VP
Frank Moore, VP Mktg.
John W. Sykes, Asst. VP-Marine Sls.
Doug Wells, Mgr. Indust. Sls.
Norm Sather, Mgr. Retail Mktg.

■ **PACIFIC PETROLEUMS, LTD.**
**(Acquired by Petro-Canada Exploration.)**

■ **H. H. PARK, INC.**
**See Halsted-Quinn Fuel Co.**

■ **PARKER OIL CO. INC.**
**P.O. Box 120**
**South Hill, VA 23970**
**Phone: (804) 447-3146**
Key: M, O-terminal operator; G, F, D, L
Sub: First Energy Corp.
Lewis W. Parker, Jr., Pres. & CEO
Charles F. Parker, Exec. VP
Lofton D. Allen, VP Mktg.
William A. Hudson, Mgr., Retail
M. G. Daniel, Mgr., Whlsl. Sls.

■ **PATTERSON ENERGY GROUP**
**185 Magnolia Ave.**
**P.O. Box 300**
**Floral Park, NY 11002**
**Phone: (212) 347-6606**
Key: M; Fr
Subs: Patterson Energy Group
Stephen J. Patterson, Jr., CEO
Stephen J. Patterson, III, Pres.
James B. Patterson, Exec. VP

■ **PEAVEY OIL CO.**
**P.O. Box 787**
**McMinnville, OR 97128**
**Phone: (503) 472-6138**
Key: I, T, M; G, F, D, LPG, L
Patricia Phillips, Pres.
Elaine Turpeinen, VP

■ **PEERLESS DISTRIBUTING CO.**
**Tower 14 Suite 1160**
**21700 Northwestern Hwy.**
**Southfield, MI 48075**
**Phone: (313) 559-1800**
Key: M; G, F
Marvin Fleischman, Pres.
Steven Robinson, Secy.
Jeffrey Fleischman, Mktg. Sls.

**Peerless Petroleum Co.**
**Galleria Tower-815E.**
**5065 Westheimer**
**Houston, TX 77056**
**Phone: (713) 871-0111**
Dale F. Goy, VP & Gen. Mgr.
Jane A. James, Dir., Aviation Fuels Mktg. Sls.
Cheryl Ann Powers, VP Mktg. Sls.

■ **PENNSYLVANIA PETROLEUM PRODUCTS CO.**
**Front & Shunk Sts.**
**Philadelphia, PA 19148**
**Phone: (215) 467-2600**
Key: O-compounder blender; Lw
Herbert L. Steinberg, Pres. & CEO
Marc H. Steinberg, Exec. VP
Norman Schwartzman, Gen. Sls. Mgr.
B. Perry, Export Mgr.

■ **PENNZOIL PRODUCTS CO.**
**Pennzoil Place**
**P.O. Box 2967**
**Houston, TX 77001**
**Phone: (713) 236-7878**
Key: I; G, F, L, D
T. W. Warren, Chmn. & CEO

■ **PESTER CORP.**
**303 Keosauqua**
**P.O. Box 10006**
**Des Moines, IA 50306**
**Phone: (515) 282-5000**
Key: T-R-M; Gr, Dr, Fr, Lr
Subs: Pester Marketing Co.
  Pester Marketing Northern
  Pester Marketing Southern
  Pester Refining Co.
  Petroleum Special Inc. of Iowa
Jack C. Pester, CEO Chmn.
C. R. Worman, Pres.
J. G. Fletcher, Exec. VP, Legal Counsel
Arvid Carlson, VP-Secy.
David W. Lammers, Pres., Petroleum Special
Phil Walsh, Exec. VP, Finance
John Leftwich, VP Admin.

**KEY**

| | |
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| I | Integrated |
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| G | Gasoline, wholesale, retail |
| F | Fuel Oil, wholesale, retail |
| D | Diesel, wholesale, retail |
| LPG | Liquefied petroleum gas wholesale, retail |
| L | Lubricants, wholesale, retail |
| w | wholesale only |
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2100 L&A ROAD
METAIRIE, LA 70181
PHONE: 504-833-1463
TWX: 810-951-6061

**GULF COAST DIVISION:**
1404 SO. HOUSTON-PASADENA RD.
PASADENA, TEXAS 77502
PHONE: 713-477-8171
TWX: 910-881-1751

**WEST COAST DIVISION:**
115 AVALON BLVD.
WILMINGTON, CA 90744
PHONE: 213-549-7990
TWX: 910-345-6391

Larry W. Alberty, VP-Mgmt. Svcs.
Richard S. Snider, VP Pub. Afrs.

**Pester Marketing Companies**
**303 Keosauqua**
**P.O. Box 10006**
**Des Moines, IA 50306**
**Phone: (515) 282-5000**
Jack C. Pester, Chmn.
C. R. Worman, Pres.
Clyde Varney, Controller

**Pester Marketing Northern**
**303 Keosauqua Way**
**P.O. Box 10006**
**Des Moines, IA 50306**
Robert D. Schmadeke, Exec. VP
Pete Brown, Sls. & Merch. Mgr.
N. G. Frantz, Const. Mgr.
Wes Fouche, Maint. Mgr.

**Pester Marketing Southern**
**7700 East Araphoe Rd. Suite 180**
**Englewood, CO 80112**
Jack Scurlock, Exec. VP
Jim Risdon, Sls. & Merch. Mgr.

**Pester Marketing Co.**
**6905A Blue Ridge**
**Raytown, MO 64133**
**Phone: (816) 358-4500**
Jack Scurlock, Exec. VP
Denny Holdgrafer, Sls. & Merch. Mgr.

**Pester Refining Co.**
**P.O. Box 10006**
**Des Moines, IA 50306**
Key: P-T-R; Gw, Dw, Fw, LPGw, Lr
Jack C. Pester, Chmn.
Jerry R. Allen, Pres.
Glenn R. Schneider, Group VP-Crude & Supp. Sls.
Nathan Yates, Controller
Earl Williams, Mgr. Crude Supply
E. D. May, Mgr. Supp. Dist.
James B. McKay, Credit Mgr.
Wm. C. Courtney, Whsle Rep.-Northern Reg.

**Pester Refining Co.**
**P.O. Box 751**
**El Dorado, KS 67042**
**Phone: (316) 321-4800**
Randy Newcomer, Mgr.
Dale George, Mgr. Asph. & Heavy Fuel Sls.

**Pester Refining Co.**
**6905A Blue Ridge**
**Raytown, MO 64133**
**Phone: (816) 358-4500**
Ernie Rohr, Mgr. Light Oil Sls.
Gregg Waack, Whsle. Rep. Cent. & West. Reg.

**■WM. R. PETERSON OIL CO.**
**276 Main St.**
**Portland, CT 05480**
**Phone: (203) 342-3560**
Key: M-Mobil; F
Ernest F. Peterson, Pres.
J. Paul Peterson, VP
William Peterson, Fuel Oil Mgr.
Mark Peterson, VP-Sewers
John Di Mauro, VP A

**■PETRO-CANADA PRODUCTS INC.**
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**Montreal, Quebec H3B 4A9**
**Phone: (514) 878-7200**
Key: I, T, R-M; G, F, D, LPG, L
Sub: Petro-Canada Inc.
W. A. West, Pres.
R. J. Mayo, Sr. VP—Coord. & Devel.
P. Dupuis, Sr. VP—Eastern Reg.
D. G. MacKenzie, Sr. VP—Central Reg.
W. R. Twiss, VP, Western Reg.
R. C. Legge, Dir.—Human Resources

**■PETROLEUM MARKETERS, INC.**
**P.O. Box K-64**
**Richmond, VA 23288**
**Phone: (804) 288-4127**
Key: T-M; G, D, F, L
Subs: Whiting Oil Co.
PM Terminals, Inc.
PM Transport, Inc.
Stop in Food Stores, Inc.
Ralph G. Roop, Chmn. & Treas.
Lester D. Haisley, Pres.
Billie F. Crowder, VP

**Whiting Oil Co.**
**P.O. Box 13026**
**Roanoke, VA 24030**
Terry M. Phelps, Pres.
Scott Blankinship, VP
Jack Jackson, Credit Mgr.

**PM Terminals, Inc.**
**P.O. Box 34370**
**Richmond, VA 23234**
Lester D. Haisley, Chmn.
John W. Smith, Pres.
C. W. Buchanan, VP
T. Michael Holder, VP

**PM Transport, Inc.**
**P.O. Box 11854**
**Lynchburg, VA 24506**
Lester D. Haisley, Chmn.
John W. Smith, Pres.

**Stop In Food Stores, Inc.**
**P.O. Box 12185**
**Roanoke, VA 24023**
Lester D. Haisley, Chmn.
Terry M. Phelps, Pres.
Scott F. Blankinship, VP
Ronald R. Hare, VP

**■PETROLEUM PRODUCTS CORP.**
**900 Eisenhower Blvd.**
**P.O. Box 2621**
**Harrisburg, PA 17015**
**Phone: (717) 939-0466**
Key: M; G, F, L, D
John A. Arnold, Chmn. & CEO
Paul E. Ermlich, Pres. & COO
Donald P. Cook, VP Whlsl.
Jack Kraynıak, Jr., Mgr., Lube Oil Sls.
Tom M. [illegible], Credit Mgr.
Anthony F. [illegible], Opns. Mgr.

**Harrisburg Div.**
George Harvey, Terminal Mgr.

**Altoona Div.**
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Key: M; G, D
Subs: Buffalo Sylvette Corp.
Sher-Two, Inc.
Service Station Rentals
S. Slepian, Pres.
Abraham Slepian, Exec. VP
Joel M. Slepian, VP, Mktg.
Richard Thompson, Treas.
Charles Hoff, Controller

**■PETROPAK OF FLORIDA**
**1033 N. Highway 47**
**P.O. Box M**
**Longwood, FL 32750**
**Phone: (305) 834-8400**
Key: M
E. W. Rearwin, Pres.
W. C. Caveny, Exec. VP
Ralph Dillingham, VP, Mktg.

**■PETTWAY OIL CO.**
**3324 Alton Park Blvd.**
**P.O. Box 2068**
**Chattanooga, TN 37409**
**Phone: (615) 266-4181**
Key: T-M; G, F, D, L
William D. Pettway, Pres. & CEO
Vanessa E. Trimble, VP Admin.
Vivian Lane, Treas.-Fuel Mgmnt. Spec.
Alfred E. Long, Dir. of Sls.
James C. White Jr., Warehouse Mgr.
James C. White, Mgr. Commer. & Indus. Sls.
Henry Apple, Mgr. Farm Sls.
Thomas F. Hixson, Trans. Mgr.
Blondell Blakely, Systems Anal.

**■PHILLIPS FUEL CO.**
**432 So. River St.**
**Hackensack, NJ 07602**
**Phone: (201) 343-6600**
Key: T-M; G-Texaco, D, F, L
James W. Phillips, Chmn.
John S. Hendricks, Pres.
G. Williard Phillips, Exec. VP
Martin A. Becker, VP, Sr. Advisor
Louis Puida, Sls. Mgr.
Carl F. Kopmann, Controller
Gary W. Steer, Opns. Mgr.

**■PHILLIPS PETROLEUM CO.**
**Bartlesville, OK 74004**
**Phone: (918) 661-6600**
Key: I; G, D, LPG, L
Sub: Aero Oil Co.
C. J. Silas, Pres.
William Douce, Chmn. of the Board
C. L. Bowerman, VP Mktg.
A. R. Malowney, Mktg. Sls. & Svcs. Mgr.
P. R. Cleek, Gen. Sls. Mgr.
D. A. Johnson, Gen. Sls. Mgr.
J. E. Lewis, Gen. Sls. Mgr.
R. A. Kurland, Spec. Prod. Sls. Mgr.
W. E. Anderson, Retail Mktg. Mgr.
R. H. Bock, Area Retail Mgr., Denver
G. S. Page, Area Retail Mgr., Tulsa
W. R. Pahmeier, Mktg. Planning & Budgeting Mgr.
H. D. Schimpf, Whlsl. & Supply Mgr.
D. J. Pasek, Adv. & Merchandising Dir.
J. M. Prentice, Mgr. TBA
W. P. Buhlinger, Mgr. Lubes, Commc'l & Marine Sls.
J. L. Hammond, Mgr. Avia.
C. A. Sousa, Mgr. Engr. Svcs.
W. Lott, Mktg. Svcs. Mgr.
J. L. Keller, Mgr. of Training
P. S. Hammond, Dir. of Training

**Atlanta District**
**Cambridge Bldg., Suite 120**
**2695 Flowers Rd. South**
**Atlanta, GA 30302**
**Phone: (404) 451-1332**
W. L. Kearns, Dist. Mgr.

**Birmingham District**
**Suite 225, 3100 Lorna Rd.**
**Birmingham, AL 35216**
**Phone: (205) 979-1315**
D. E. Butler, Dist. Mgr.

**Chicago District**
**999 Plaza Dr., Suite 215**
**Schaumburg, IL 60195**
**Phone: (312) 843-0466**
J. F. LaRue, Dist. Mgr.

**Clearwater District**
**51 Main St., Belcher Plaza**
**Building N, Suite 303**
**Clearwater, FL 33515**
**Phone: (813) 443-0668**
L. A. Jensen, Dist. Mgr.

**Columbus District**
**500 W. Wilson Bridge Rd.**
**Suite 250**
**Columbus, OH 43085**
**Phone: (614) 436-2640**
W. N. Tolbert, Dist. Mgr.

**Ft. Lauderdale District**
**2601 E. Oakland Pk. Blvd.**
**Box 11394, Coral Ridge Stn.**
**Ft. Lauderdale, FL 33306**
**Phone: (305) 566-6066**
R. W. Friedewald, Dist. Mgr.

**Louisville District**
**7320 La Grange Rd., Suite 112**
**Louisville, KY 40222**
**Phone: (502) 426-6650**
M. L. Jernigan, Dist. Mgr.

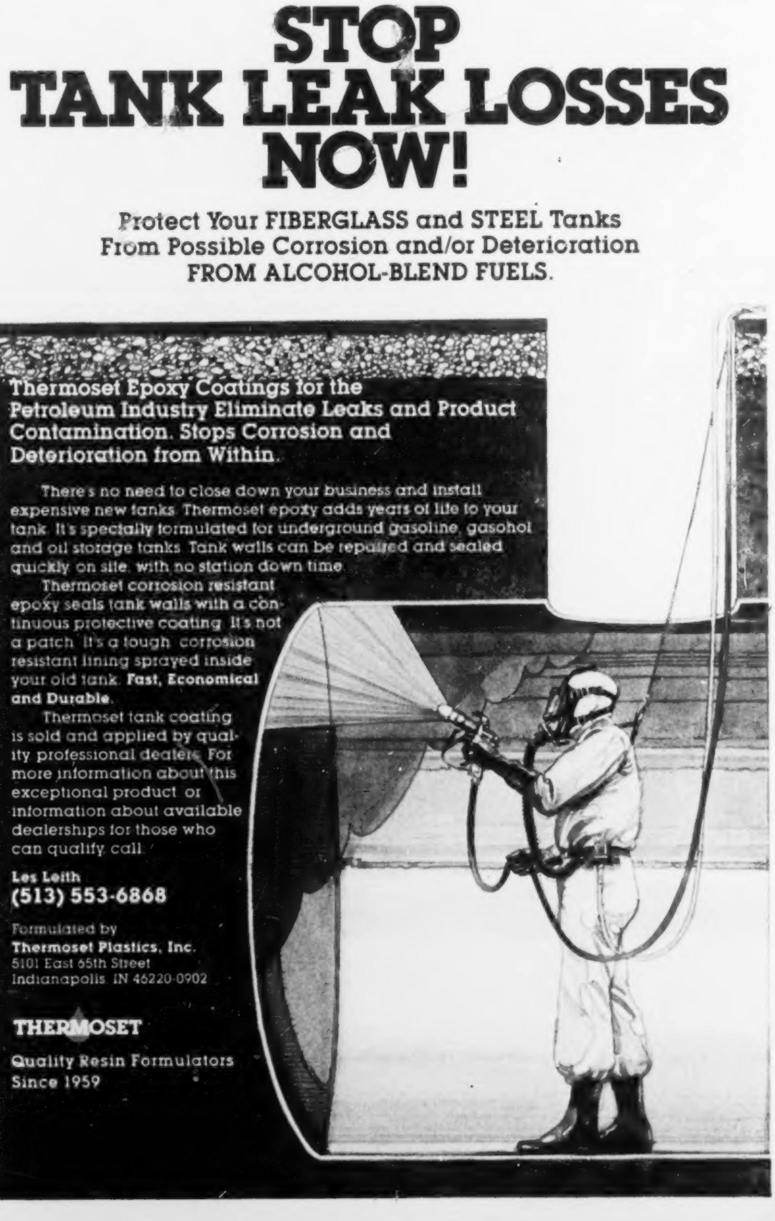
**Minneapolis District**
**7900 Xerxes Ave.**
**Minneapolis, MN 55431**
**Phone: (612) 835-6600**
V. A. Wenzlaff, Dist. Mgr.

**Raleigh District**
**3117 Poplarwood Ct.**
**Raleigh, NC 27625**
**Phone: (919) 876-5024**
J. R. Downing, Dist. Mgr.

**St. Louis District**
**300 Ozark Trail Dr., Suite 2100**
**Ellisville, MO 63011**
**Phone: (314) 227-6664**
R. A. Harling, Dist. Mgr.

**KEY**

| | |
|---|---|
| **I** | Integrated |
| **T** | Transporter |
| **R-M** | Refiner-marketer |
| **M** | Marketer |
| **G** | Gasoline, wholesale, retail |
| **F** | Fuel Oil, wholesale, retail |
| **D** | Diesel, wholesale, retail |
| **LPG** | Liquefied petroleum gas wholesale, retail |
| **L** | Lubricants, wholesale, retail |
| **w** | wholesale only |
| **r** | retail only |



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**9233 Ward Pkwy., Suite 118**
**Kansas City, MO 64114**
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**8128 E. 63rd St.**
**Tulsa, OK 74133**
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**Wichita, KS 67213**
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**Albuquerque District**
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**6101 Marble N.E.**
**Albuquerque, NM 87108**
**Phone: (505) 265-6606**
L. E. Doty, Dist. Mgr.

**Denver District**
**8055 Tufts Ave Pkwy**
**Denver, CO 80237**
**Phone: (303) 850-3070**
R. B. Houston, Dist. Mgr.

**Omaha District**
**7171 Mercy Rd., Suite 300**
**Omaha, NE 68106**
**Phone: (402) 397-8166**
J. G. Wright, Dist. Mgr.

**Salt Lake City District**
**431 S. 3rd E. St.**
**Box 239**
**Salt Lake City, UT 84110**
**Phone: (801) 364-5664**
C. L. Hamer, Dist. Mgr.

**Amarillo District**
**3505 Olsen Blvd., Suite 202**
**Amarillo, TX 79109**
**Phone: (806) 355-8951**
L. E. Rapier, Dist. Mgr.

**Dallas District**
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**Richardson, TX 75080**
**Phone: (214) 690-3866**
W. W. Thomson, Dist. Mgr.

**Houston District**
**P.O. Box 1967**
**Houston, TX 77001**
**Phone: (713) 669-3863**
R. F. Lewis, Dist. Mgr.

**Shreveport District**
**3341 Youree Dr., Suite 113**
**Shreveport, LA 71105**
**Phone: (318) 869-3158**
B. A. Likens, Dist. Mgr.

**■PIASA MOTOR FUELS INC.**
**P.O. Box 484**
**Alton, IL 62002**
**Phone: (618) 254-7341**
Key: T-M; G-Conoco, D, F-Conoco, L
Robt. W. Schrimpf, Pres. & CEO
Donald F. Schrimpf, Exec. VP
S. Wiley Davis, VP, Mktg. & Gen. Sls. & Adv. Mgr.

**■J. W. PIERSON CO.**
**89 Dodd St.**
**East Orange, NJ 07019**
**Phone: (201) 673-5000**
Key: M; F
J. W. Pierson, Pres.
Suzenne Davis, VP Secty.
Jesse Davis, Dist. Sls. Mgr.

**■PILOT OIL CORP.**
**P.O. Box 10146**
**7401 Kingston Pike**
**Knoxville, TN 37919**
**Phone: (615) 588-7488**
Key: M; Gr, D, Fr
James A. Haslam, II, Pres. & CEO
James A. Haslam, III, VP Mktg.
William E. Haslam, VP Corp. Devel.
Rex Fox, Controller
Tom Edwards, Reg. Mgr.
J. Meeks, Reg. Mgr.
Ronald Motley, Mktg. Mgr.
Roger Smith, Constr. & Maint. Mgr.
Alan Wright, Trans. Mgr.
Hobert Perdue, Jr., Station Coord.

**■PIONEER OIL CO.**
**P.O. Box 16935**
**Philadelphia, PA 19153**
**Phone: (215) 727-2100**
Key: O-Manuf., Lw
S. S. Simon, Pres. & CEO
Morton Segal, VP
John Cunningham, Gen. Sls. Mgr.

**■PLACID REFINING CO.**
**3900 Thanksgiving Tower**
**Dallas, TX 75201**
**Phone: (214) 741-3081**
Key: R-M; Gw, Fw, Dw
Sub. of Placid Oil Co.
C. D. Brown, Pres.
Walter V. Fraker, VP
P. G. Clarke, VP
B. J. Johnson, VP Land
Feather Wilson, VP Geol. & Phys.

**Port Allen Refinery**
**P.O. Box 350-B**
**Port Allen, LA 70767**
**Phone: (504) 387-0278**
C. B. Keys, Plant Mgr.

**P.O. Box 66421**
**Baton Rouge, LA 70806**
**Phone: (504) 927-5934**
Aubrey S. Cox, Mgr., Whlsl. Sls.

**P.O. Box 1146**
**Tallulah, LA 71282**
**Phone: (318) 574-1299**
Ron Hancock, Whlsl. Sls. Rep.

**■PORT OIL**
**P.O. Box 31819**
**1766 Meeting St.**
**Charleston, SC 29417-1819**
**Phone: (803) 723-3495**
Key: T-M; G, Dw, Fw, L
Gaines Peyton, Pres. & CEO
R. E. Harris, Exec. VP
Jesse O. Brown, VP, Mktg.
Florence A. Morton, Sls. Mgr. Whlsl.
John G. Misoyianis, Sls. Mgr. Lubr.

**■POWER TEST CORP.**
**175 Sunnyside Bl.**
**Plainview, NY 11803**
**Phone: (516) 576-9500**
Key: T-M; G, D, Fw, L
Subs: Power Test Pet. Dist.
  Power Test of Connecticut, Inc.
  Power Test of Massachusetts, Inc.
  Power Test of New Jersey
  Power Test Petro Corp.
  Leemilt's Petroleum
  Staten Island Gasoline Corp.
  Clay Oil Terminals, Inc.
  Donna Oil Corp.
  Gasway, inc.
Lee Liebowitz, Pres.
Milton Safenowitz, Exec. VP
Louis Cohen, Supply & Distrib.
Herbert Wechsler, VP Sls. Mktg.
Geo. DeForest, VP Real Estate

**Highland, NY 11528**
**42 River Rd.**
**Phone: (914) 454-5130**
Richard Dexter, Dist. Mgr.

**N. J. & Pennsylvania**
**1292 Rte. 22E**
**No. Plainfield, NJ 07061**
**Phone: (201) 756-8150**
Erhard Zimmer, Dist. Mgr.

**Bronx, NY (Westchester) 10466**
**4301 Boston Post Rd.**
**Phone: (212) 324-5110**
Julie Becker, Dist. Mgr.
Sandy Dulitz, Asst. Div. Mgr.

**Brooklyn-Queens-Staten Island**
**175 Sunnyside Blvd.**
**Plainview, NY 11803**
**Phone: (516) 576-9500**
T. J. Breck, Dist. Mgr.

**Long Island**
**175 Sunnyside Blvd.**
**Plainview, NY 11803**
**Phone: (516) 576-9500**
Vic Marchal, Dist. Mgr.

**Massachusetts & Connecticut**
**168 South Boulevard**
**West Springfield, Mass. 01089**
**Phone: (413) 737-8770**
James Craig, Dist. Mgr.

**Leemilt's Petroleum**
**175 Sunnyside Blvd.**
**Plainview, NY 11803**
**Phone: (516) 576-9500**
Key: M; G-Texaco, L, D
Leo Liebowitz, Pres.
Milton Safenowitz, Exec. VP
Louis Cohen, VP, Mktg., Supply & Dist.
Herbert Wechsler, VP Sls. & Mktg.
Geo. DeForest, VP, Real Estate

**■PRIDE OF TEXAS DIST. CO.**
**P.O. Box 1208**
**1925 W. Pioneer Pkwy.**
**Arlington, TX 76010**
**Phone: (817) 261-2575**
Key: M; G, F, D, L
Homer L. McGinnis, Pres.

**■PRIDE OIL CO.**
**P.O. Box 12028**
**5414 Clinton Hwy.**
**Knoxville, TN 37912**
**Phone: (615) 687-4682**
Key: M; Gr, Dr, Fr
Subs: Kelso Oil Co., Inc.
  Magnolia Package Store
  Pride Car Wash
Andrew J. Gettelfinger, Pres.
Earl I. Gettelfinger, Exec. VP
Tom Stooksbury, Gen. Sls. Mgr.
Paul Lawson, Mgr., Retail Sls.

**■PRIDE OIL CO.**
**509 B. Alabama St.**
**P.O. Box 2344**
**Columbus, MS 39704-2344**
**Phone: (601) 328-7757**
Key: T-M; G, D, Fw
Eddie B. Byars, Jr., Pres.
Ralph W. Byars, Exec. VP

**■PRIVATE BRAND SERVICES**
**1010 S. Mitchell St.**
**Cadillac, MI 49601**
**Phone: (616) 775-1308**
Key: M; G, D
Joseph W. Davy, Pres.
Larry J. Davy, Exec. VP
Lynda Herdegen, Sec. Treas.

**■PUBLIC FUEL SERVICE**
**357 E. 116th St.**
**New York, NY 10029**
**Phone: (212) 722-3000**
Key: M; F, D
Subs: Ajax Fuel Corp.
  Baerenklau Co., Inc.
  Donnenfeld Fuel Corp.
  Farrell Fuel Corp.
  Harper Fuel Corp. (See below)
  Heat-Serv. Corp.
Robert B. Greenes, Pres.
Donald J. Mangone, VP & Gen. Sls. Mgr.
Al Schwartz, Credit Mgr.
Joseph Russo, Off. Mgr.

**Harper Fuel Oil Corp.**
**357 E. 116th St.**
**New York, NY 10029**
Donald I. Jaffe, Div. Mgr.

**■PUBLIX OIL CO.**
**3495 Cumberland Club**
**Atlanta, GA 30339**
**(404) 436-4335**
Key: T, M; G, F, D, Lr
Subs: Dalton Oil Co. Inc.
  Hay Oil Co.
  Publix Distributing Co.
  Scotland Oil Co. Inc.
  Scotland Oil Co. of Ga.
  Tire Dist. Inc.
Robt. O. Casaday, Pres. & CEO
Don Langston, VP Mktg.

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**P.O. Box 11605**
**Phone: (615) 584-1533**

**Nashville, TN 37207**
**P.O. Box 8131**
**Phone: (615) 254-3501**

**■W. H. PUGH OIL CO.**
**200 Dodge St.**
**Racine, WI 53402**
**Phone: (414) 632-4491**
Key: M; G, F, L, D
W. H. Pugh, Sr., Pres. & CEO
Sigurd Hegland, VP
W. H. Pugh, Jr., P.L.T. Mgr.

**Sylvania Oil Co.**
**13709 Old Hall**
**Sturtevant, WI 53177**
Joyce Blaser, Div. Mgr.

**■PYRAMID OIL CO.**
**140 County Rd.**
**Tenafly, NJ 07670**
**Phone: (201) 568-9630**
Key: M; G, F, D
Sub: Pyramid Fuel Oil Co.
Victor Cinu, Pres.
Glenn Zomack, VP
Charles Waldron, Sls. Mgr.

**■QUAKER STATE OIL REFINING CORP.**
**P.O. Box 989**
**Oil City, PA 16301**
**Phone: (814) 676-7676**
Key: I; Gw, Dw, Fw, Lw
Subs: Corn Brothers, Inc.
  Quaker State, Inc.
  Texstar Automotive Group, Inc.
  Truck-Lite Co., Inc.
  The Valley Camp Coal Co.
Q. E. Wood, Bd. Chmn. & CEO
R. A. Markle, Pres.
W. Paul Hodges, Exec. VP
W. B. Cook, Exec. VP
J. D. Berry, III, Exec. VP
J. N. Kelley, VP, Mktg.
T. R. Moore, VP, Brand Sls.
S. A. Julian, Mgr., Nat'l Accts.
A. J. Fischer, Mgr., Fleet Commercial Sls. Dept.
D. L. Fisher, Mgr., Automotive Consumer Prod. Dept.
C. J. Shelkey, Mgr., Coatings Dept.
W. E. Kingsley, Mgr., Supply & Distrib.
C. L. Wilbert, Mgr., Export Sls.
W. T. Roseblade, Mgr., Sls. Coord. & Trng.
P. F. Petraglia, Adv. Mgr.
D. E. Grumling, Asst. Treas., Gen. Credit Mgr.
T. C. Maxwell, Mgr., Customer Svcs. Dept.
J. P. Pearson, Gen. Mgr., Sterling Oil Div.
G. W. Freeman, Opns. Mgr., Sterling Oil Div.
J. N. Campbell, Jr., Sls. Mgr., Sterling Oil Div.

**Corn Brothers, Inc.**
**P.O. Box 2397**
**Smyrna, GA 30081**
**Phone: (404) 799-7212**
Key: M; Lw
J. W. Corn, Bd. Chmn. & CEO
H. M. Ellenburg, Pres. & COO
R. E. Hardesty, VP, Sls.
J. M. Shields, VP, Equipment & Chemical Sls.

**Texstar Automotive Group, Inc.**
**9060 Latty Avenue**
**St. Louis, MO 63134**
**Phone: (314) 521-3900**
Key: T-M; L
K. M. Vitor, Pres. & CEO
D. L. Brisk, VP & Gen. Mgr.
P. O. Hampton, VP, Fin. Sec. Treas.
M. A. Miller, Gen. Mgr., Dir. Mktg.
J. P. Cernicky, Dir. Opns.

**Quaker State, Inc.**
**P.O. Box 549**
**Burlington, Ont., Canada L7M 1T3**
**Phone: (416) 335-5577**
Key: M; Lw
J. W. Cooper, Pres. & COO
D. B. Barratt, VP, Sls.

**■QUALITY OIL CO.**
**Box 2736**
**Winston-Salem, NC 27102**
**Phone: (919) 722-3441**
Key: T, M; G, F, D, L
Subs: Gas House Co.
J. K. Glenn, Gen. Partner
B. L. Bennett, Jr., Gen. Partner
J. K. Glenn, Jr., Gen. Partner
Graham Bennett, Gen. Partner
B. R. Beck, Sls. Mgr.
J. S. Blackwelder, Credit Mgr.
P. L. Burton, Opns. Mgr.
J. B. Slate, Real Estate & Branch Supvr.
Rocky Nolen, Dir. of Finance
W. A. Bryant, Comptroller
Harry Alexander, Quality Marts
Ernie Rhymer, Purchasing & Real Estate

**Elizabeth City, NC 27090**
**P.O. Box 514**
Jack McLelland, Supvr.

**Greenville, NC 27834**
**P.O. Box 815**
Charles Gaskins, Mgr.

**Mt. Airy, NC 27030**
**P.O. Box 609**
Gary Neugent, Supvr.

**Statesville, NC 28677**
**P.O. Box 22**
Gray Fowler, Mgr

**Southern Pines, NC 28387**
**P.O. Box 1258**
Andy Sayles, Supvr.

**Gas House Co.**
**P.O. Box 2736**
**Winston-Salem, NC 27102**
Jimmy Harbour, Supvr.

**■QUARLES PETROLEUM**
**P.O. Box 5249**
**Fredericksburg, Virginia 22403**
**Phone: (703) 371-2400**
Key: M-Shell, Texaco, BP, Phillips 66, G, D, Fw
D. E. Quarles Sr., Pres.
D. E. Quarles Jr., CEO
Ben Wafle, Treasurer
John McIntyre, Opns. Mgr.
Gary McEntee, Controller
Stuart Fears, Gen. Mgr., Quarles Petroleum, Fredericksburg
Tom Gillespie, VP, Gen. Mgr., Quarles Oil of Warrenton
Thad Green, Gen. Mgr., Quarles Petroleum, Harrisonburg
Wayne Rountree, VP, Mgr., Quarles-Robertson Oil, Fairfax
Rolfe Robertson, III, Sales Mgr. Quarles-Robertson Oil
D. E. Quarles III, Gen. Mgr., Quarles Petroleum, Front Royal
Mike Cason, Gen. Mgr., Quarles Oil of Culpeper

**■QUINCY OIL**
**10 McGrath Hwy.**
**Quincy, MA 02169**
**Phone: (617) 773-2500**
Key: M; G, D, F
Sub. of Quinoil Industries, Inc.
Subs: Deepwater Oil Terminals, Inc.
Quincy Oil Service Stations Consolidated, Inc.
W. R. Prang, Pres. & CEO
William G. Kiniry, VP Gen. Mgr.
Robert P. Melchin, VP Chief Fin. Off.
Louis J. Bagley, Credit Mgr.

**■QUORTRUP PETROLEUM CO.**
**P.O. Box 672**
**Carrollton, TX 75006**
**Phone: (214) 243-4854**
Key: M; G-Phillips, D, L
W. H. Quortrup, Pres. & CEO

**■RACETRAC PETROLEUM**
**P.O. Box 105035**
**Atlanta, GA 30348**
**Phone: (404) 434-0400**
Key: M; Gr-Racetrac, Dr
Carl Bolch, Jr., CEO
J. Michael Hardin, Pres.
Max Lenker, Purchasing VP
Robert Stier, Gen. Sls. Mgr.

**■RALLY OIL CO.**
**P.O. Box 1017**
**Melville, NY 11747**
**Phone: (516) 423-3030**
Key: M; G, D
Sub. of Tartan Oil Corp.
Barry Tallering, Pres. & CEO

**■RED HEAD OIL CO.**
**Irvine Rd.**
**P.O. Box 787**
**Richmond, KY 40475**
**Phone: (606) 623-6705**
Key: M; G, F, L, D
Alex Fassas, Pres. & CEO
Phil Montgomery, Mktg. Mgr.
Tom Fassas, Dir. Purchasing

**■REFINERS MARKETING CO.**
**100 So. Seaside Ave.**
**P.O. Box 3500**
**Phone: (213) 519-7696, 775-8251**
Key: P-M; L
Donald T. Jones, Pres.
John D. Miessner, Admin. VP
Al Metz, Plant Mgr.

**■REINAUER PETROLEUM CO.**
**101 E. Broadway, Box 66**
**Hackensack, NJ 07601**
**Phone: (201) 488-6600**
**Phone: (201) 489-9700**
Key: M, G, D, F, L
B. Franklin Reinauer, II, Chmn. & CEO
B. Franklin Reinauer, III, Pres.
Anthony Schiavino, Gasoline Sls. Mgr.
Gary R. Mortman, Mgr. Instl. & Ser.
Robert J. Dydo, Dir. of Opns.

**■REINHARDT OIL CORP.**
**P.O. Box A**
**West Oneonta, NY 13861**
**Phone: (607) 432-6633**
Key: M, G, F, D, LPG, L
Subs: Reinhardt-Andrus Co.
Corner Food Stores, Inc.
Robert E. Serig, Pres. & CEO
Rudy Ballard, Exec. VP
Dave Harder, Gen. Mgr. Fuel Oil Sls.

**■RELIANCE UTILITIES**
**477 West John St.**
**Hicksville, L.I., NY 11802**
**Phone: (516) 931-6800**
Key: M; Fr
Malvin Sevin, CEO
Erik Sevin, Pres.
Larry Caputo, Gen. Mgr.

**■REPUBLIC OIL CORP.**
**22514 Ventura Blvd.**
**Woodland Hills, CA 91364-1464**
**Phone: (818) 888-7532**
Key: M; G, D
Sub: Dixxie Diesel Truck Stops
Richard A. Baldinger, Pres.
J. T. Helsom, Exec. VP

**■REMOTE SERVICES**—(See Conna Corp.)

**■RESEARCH FUELS, INC.**
**P.O. Box 8229**
**Horseshoe, TX 78654-8229**
**Phone: (515) 598-8539**
Key: M; Gr, Dr

**KEY**

| | |
|---|---|
| **I** | Integrated |
| **T** | Transporter |
| **R-M** | Refiner-marketer |
| **M** | Marketer |
| **G** | Gasoline, wholesale, retail |
| **F** | Fuel Oil, wholesale, retail |
| **D** | Diesel, wholesale, retail |
| **LPG** | Liquefied petroleum gas wholesale, retail |
| **L** | Lubricants, wholesale, retail |
| **w** | wholesale only |
| **r** | retail only |

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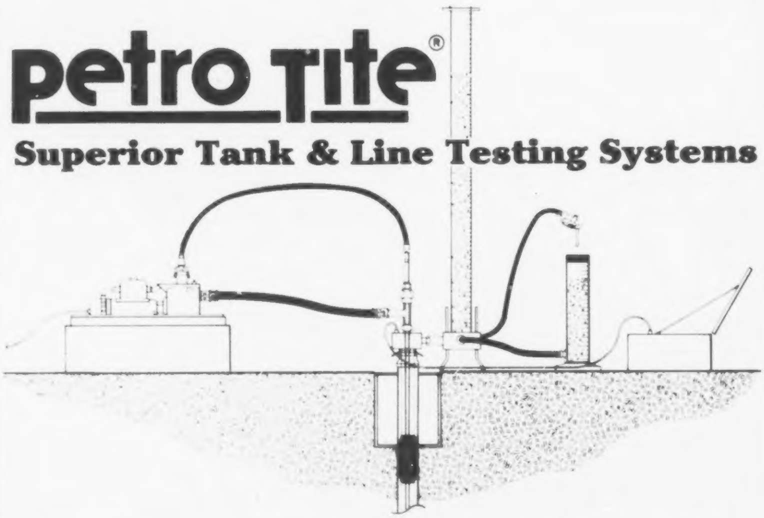

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**Ft. Lauderdale, FL 33315**
**Phone: (305) 523-5911**
Key: M; G
Jerry M. Porter, Pres.
Jerry M. Porter, Jr., VP
Leroy K. Dellinger, VP

■**REYNOLDS INDUSTRIES, INC.**
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**Watertown, MA 02172**
**Phone: (617) 924-4650**
Key: M; G-Port, D, F-Port, LPGr
Subs: Port Oil Corp.
  Port Oil Corp. Northeast
  Port Food Stores
Phillip L. Reynolds, Pres. & CEO
David G. Reynolds, Exec. VP

■**R.I. MARKETING INC.**
**8500 Georgetown Rd.**
**Indianapolis, IN 46268**
**Phone: (317) 875-8500**
Key: M; Gr, Dr, Lr
Michael Dellen, Pres.
W. B. Conner, Exec. VP
Richard Jones, VP
Dallas Simon, VP

■**RIVER OIL CO.**
**1550 Channel Ave.**
**Memphis, TN 38113**
**Phone: (901) 948-8538**
Key: M; G, Dw, Lw
James L. Fri, Jr., Pres.

■**F. L. ROBERTS & CO.**
**P.O. Box 1964**
**Springfield, MA 01101**
**Phone: (413) 781-7444**
Key: M; G, Fw, D, L
Subs: RPC Corp.
  Royal Greenfield
Abbott S. Roberts, Chmn.
Steven M. Roberts, Pres.
John J. McGirr, Sr. VP, Supply & Distrib.
A. Seth Roberts, VP Sls.
Joseph F. Maggi, VP Fin.
Donald F. Spellacy, Mgr. Information Svcs.
Daniel Copenhaver, Car Wash Opns. Mgr.
R. Santoni, Mgr. Retail Admin.

■**ROBINSON OIL CO.**
**4250 Williams Rd.**
**San Jose, CA 95129**
**Phone: (408) 255-9531**
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John E. Kloster, Controller

■**ROCK ISLAND REFINING CORP.**
**5000 W. 86th St.**
**Indianapolis, IN 46268**
**Phone: (317) 872-3200**
Key: R-M; G, D, F
Subs: Rock Island Resource Co.
  R. I. Marketing
William E. Huff, Pres.
F. W. Grube, Exec. VP
J. P. Hofer, VP Fin.
John E. D. Boudler, Mgr. Whlsl. Sls.
D. L. Musolino, Mgr. Nat'l Accts.

**Tulsa Oil Corp.**
**Box 2069**
**Livonia, MI 48151**
**Phone: (313) 525-4500**
Key: M; Gr, Dr, Fr
Louis E. Kincannon, Pres.
Dallas H. Simon, Exec. VP

**Colonial Oil Co.**
**P.O. Box 6280**
**Fort Wayne, IN 46802**
George O. Bitler, Pres.

**Golden Imperial, Inc.**
**P.O. Box 68410**
**Indianapolis, IN 46268**
L. E. Kincannon, Pres.
W. B. Connor, III, VP

**United Oil Service**
**5436 Brookville Rd.**
**Indianapolis, IN 46219**
M. R. Dellen, Pres.
E. L. Winkler, VP

■**ROCKET OIL CO.**
**P.O. Box 9022**
**Canton, OH 44711**
**Phone: (216) 452-7945**
Key: M; Gw-Rocket
Donald C. Coen, Secty.

**Diamond Service Stations**
**P.O. Box R**
**Macon, GA 31202**
**Phone: (912) 742-0985**
Key: M; Gr
John F. Rogers, Jr., CEO
Ed Norwood, Pres.

■**ROSS RESOURCES, INC.**
**310 West Central, Suite 121**
**Wichita, KS 67202**
**Phone: (316) 264-6113**
Key: M; G, D, L
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**4088 Pearl St. Road**
**Batavia, NY 14020**
**Phone: (716) 343-4444**
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Subs: Albion Oil Co.
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Neil T. Burns, Pres. & CEO
Elsie F. Ryan, Secty.-Treas.
Bruce Briggs, Mgr., R D C O Div.
W. W. Judkins, Asst. Treas.
Lewis Grasso, Opns. Mgr.
Richard Sikes, VP TBA

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**La Plata, MD 20646**
**Phone: (301) 934-8101**
Key: M-Texaco, BP, Arco; G, D, F, L
Subs: Delmarva Oil
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C. F. Boyers, Sr. VP
J. B. Wills Jr., VP Mktg.
J. Binette, M.F. Mgr.
J. Combs, C-Store Mgr.
B. Hawthorn, Auto. Aftermkt. Mgr.
J. Fox, Personnel Mgr.
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M. Adams, Credit Mgr.

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**615 Second St.**
**Hudson, WI 54016**
**Phone: (715) 386-5157**
Key: M; Gr, L
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Gail Nordstrand, Dahlstrom, Exec. VP
Donald C. Dahlstrom, Gen. Sls. Mgr.
Larry K. Hopkins, Controller
Steven L. Cross, Maintenance Mgr.
Richard W. Johnson, Mdse., Mgr.

■**SAHARA OIL CO.**
**P.O. Box 6574**
**Phoenix, AZ 85005**
**Phone: (602) 253-2159**
Key: M; G, D
Robert L. Ragel, Pres.

■**SAN ANN SERVICE**
**P.O. Box 618**
**Boaz, AL 35957**
**Phone: (205) 593-4286**
Key: M; G, D
H. K. Scott

■**SANTA FUEL**
**154 Admiral St.**
**Bridgeport, CT 06605**
**Phone: (203) 367-3661**
Key: M-Mobil; F
Sub: Inland Fuel Terminals
S. George Santa, Pres.
Norman K. Santa, Exec. VP
Robt. F. Benn, Gen. Sls. Mgr.
John S. Santa, Controller
Donald F. Santa, Opns. Mgr.

■**SANTEE OIL CO.**
**P.O. Box 567**
**U.S. Hgwy. 52 North**
**Kingstree, SC 29556**
**Phone: (803) 354-6131**
Key: M; G, F, D, L
W. H. Cox, Pres.
C. G. Bass, VP-Treas., Gen. Mgr.
Joan M. Cox, Secty.
W. A. Edwins, Sls. Mgr.

■**SAV-A-LOT GAS CO.**
**10001 Folsom Blvd.**
**Sacramento, CA 95827**
**Phone: (916) 366-3858**
Steve Beneto, Jr.

■**SAVCO INC.**
**(Formerly Savco Self-Service, Inc.)**
**7813 Percival Rd.**
**P.O. Box 84**
**Columbia, SC 29206**
**Phone. (803) 787-8245 799-5472**
Key: M; G, LPGr, Lr
L. L. McNair, Pres. & CEO
Charles E. McNair, Exec. Mktg. VP

■**SAVE-X, USA**
**130 Sycamore Ave.**
**Roanoke, VA 24012**
**Phone: (703) 342-7885**
Key: M; Gr, Dr, Fr
Sub: Serv-n-Save, Inc.
Roy R. Pollard Jr., Pres. & CEO
W. Earle Spruill, Jr., VP & Gen. Mgr.

■**SAVINGS OIL CO.**
**P.O. Box Drawer 1688**
**Tupelo, MS 38802-1688**
**Phone: (601) 842-7525**

■**SAV-MOR OIL CO.**
**5150 Wilshire Blvd., Suite 400**
**Los Angeles, CA 90036**
**Phone: (213) 933-9366**
Key: M; G, D, L
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James Fulton, Mktg. VP
Leonard Montgomery, Real Estate Mgr.

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**Box 490**
**Winner, SD 57580**
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Key: M; G, D, L
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Brian K. Schaeffer, Exec. VP

■**SEARS OIL CO.**
**1914 Black River Blvd.**
**Rome, NY 13440**
**Phone: (315) 337-1232**
Key: T-M; G, F, D
Aff: Sears Petroleum & Transport Corp.
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H. P. Sears, Jr., VP Mktg. Opns.
T. A. Sears, Gen'l. Sls., Whlsl. Sls. Indus. Cons. Sls. & Fuel Oil Sls.
James Plumb, Mgr. Retail Sls.
James Kittleman, Credit Mgr.
Geo. Brown, Off. Mgr.
David Miller, Auditor

■**SELF-SERVICE OIL CO.**
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**Rockford, IL 61125-1206**
**Phone: (815) 964-3920**
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W. R. Williams III, VP
C. F. Bergquist, VP
Lois B. Williams, Secty.-Treas.
D. J. Wehrstein, Supvr. Rockford, IL
C. F. Bergquist, Supvr. Poynette, WI
Charles Mosebach, Supvr. WI

■**SEMINOLE ASPHALT REFINING CO.**
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**St. Marks, FL 32355**
**Phone: (904) 224-1194**
Key: R; F, D
H. Carl Vaught, Pres.
B. M. Nichols, VP Ref.

■**SHAHEEN NATURAL RESOURCES CO.**
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**New York, NY 10016**
**Phone: (212) 867-0250**
Subs: Octane Oil Co.
Robt. A. Collier, Chmn.
John M. Shaheen, Pres. & CEO

**Octane Oil Co.**
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**New York, NY 10016**
**Phone: (212) 867-0250**
Key: M; D, F
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Robt. A Collier, VP, Asst. Secty., Asst. Treas.
Peter L. Caras, VP, Asst. Secty., Asst. Treas.

■**SHAVER & McCARTHY INC.**
**259 E. Lake St.**
**Wayzata, MN 55391**
**Phone: (612) 473-7391**
Key: M; G, L
Baird Shaver, Pres. & CEO
Craig Shaver, Secty.

■**SHELBY PETROLEUM CORP.**
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**LaFollette, TN 37766**
**Phone: (615) 562-3361**
Key: M; G, F, D, L
Subs: Bonus Distributing Co.
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  Rainbow Richlands, Inc.
  Shelco Corp.
K. Russell Shelby, Pres. & CEO
L. Joe Herrell, VP Mktg. & Mgr., Gen. Sls. Whlsl. Sls.
Floyd Burris, Mgr. Indus. Cons. Sls. & TBA
W. Don Baker, Mgr. Retail Sls. Mdsg. & Opns.
Patricia Tidwell, Credit Mgr.

■**SHELL CANADA LTD.**
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E. Wende, Mgr. Auto. Mkts.
R. H. Duke, Mgr. Comcl. Mkts.
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Z. G. Kowal, Mgr. Merchandising
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**Don Mills, Ont. M3B 3K4 Canada**
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**Eastern Marketing Region**
**Place Ville Marie, Ste. 2000**
**Montreal P.Q. H3B 4B1 Canada**
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F. P. Brais, Comcl. Sls. Mgr.
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**Western Marketing Region**
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**Vancouver, B.C. V6N 4N8 Canada**
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L. L. Osborn, Mgr. Employee Relations Support-Products
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Q. P. Graves, Mgr. Lubricants Dept.
J. F. Kelly, Mgr. Reg. Business Center—WOR
R. C. Harrell, Mgr. Reg. Business Center—EOR
S. C. Lancaster, Mgr. Prod. Distrib.
R. H. Garnett, Jr., Head Office Retail Mgr.
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S. L. Miller, Retail Mktg. Mgr.—Eastern
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Phone: (553) 866-6201
R. F. Woodworth, Mgr.

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B. T. Baty, Mgr.

**Indianapolis (IN 46268) District**
8500 N. Michigan Road
Phone: (317) 291-7440
W. J. Beumer, Mgr.

**St. Louis (MO 63074) District**
500 Northwest Plaza
Suite 1000
St. Ann, MO 63074
Phone: (314) 291-5700
W. R. Cox, Mgr.

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3468 Mt. Diablo Boulevard, Suite B103
Lafayette, CA 94549
Phone: (415) 283-4200
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**KEY**

| | |
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| I | Integrated |
| T | Transporter |
| R-M | Refiner-marketer |
| M | Marketer |
| G | Gasoline, wholesale, retail |
| F | Fuel Oil, wholesale, retail |
| D | Diesel, wholesale, retail |
| LPG | Liquefied petroleum gas wholesale, retail |
| L | Lubricants, wholesale, retail |
| w | wholesale only |
| r | retail only |

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**Anaheim, CA 92803**
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H. W. Jenkins, Mgr., West
R. W. Sherwood, Mgr., East

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**P.O. Box 13678**
**Phone: (916) 481-0400**
R. G. Swanson, Mgr.

**San Francisco District**
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**San Bruno, CA 94066**
**Phone: (415) 952-2250**
V. K. Clifford, Mgr.

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**511 North Brookhurst Street**
**Anaheim, CA 92803**
**Phone: (714) 991-9200**
J. B. Bird, Mgr.

**■SHERER OIL CO.**
**608 Central**
**Johnstown, PA 15902**
**Phone: (814) 535-8441**
Key: T, M; G, F
Sub: Ringer Tri-State Oil Co. (30%)
Herbert M. Sherer, Pres.
Gary L. Bellack, VP, Sec.
Louis M. Gjurich, Treas. Asst. Sec.

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**P.O. Box 100**
**Morristown, AZ 85342**
**Phone: (602) 975-1111**
Key: R.; Gw
P. Wyman Shepherd, CEO
J. W. Byrns, Pres.
William H. Weathersby, Gen. Mgr.

**■SHIPLEY-HUMBLE, INC.**
**550 East King Street**
**P.O. Box 946**
**York, Pennsylvania 17405**
**Phone: (717) 848-4100**
Key: T-M Exxon, Arco, Amoco, G, F, D
W. S. Shipley, II, President
H. C. Zimmerman, Exec. VP
J. F. Freet, Jr., VP-Finance, Sec.-Treas.
G. F. Ioos, Asst. Sec., Credit Mgr.
D. E. Wilson, Mgr.-Supply and Distrib.
R. C. Borden, Jr., Mgr.-Motor Fuels Sls.
W. S. Shipley, III, Retail Fuel Oil Sls. Mgr.
I. E. Baumgardner, Mgr.-Svcs. Dept.

**■SHORES OIL CO.**
**19933 E. Nine Mile Rd.**
**St. Clair Shores, MI 48080**
**Phone: (313) 776-2670**
Key: M.; Gw-Union, Dw, F-Union, L
Edw. D. Brown, Pres.
Robt. A. Dryden, Exec. VP
Edw. E. Vollenweider, VP

**■SHOTMEYER BROS. PETROLEUM CORP.**
**10 Wagaraw Rd.**
**Hawthorne, NJ 07506**
**Phone: (201) 427-1000**
Key: M; G, F, D, L
Subs: Shotmeyer Bros. Fuel Corp.
Henry Shotmeyer, Sr., CEO
Charles Shotmeyer, Pres.
Henry Shotmeyer, Jr., Treas.

**■SHOTMEYER OIL CORP.**
**1 Valley Street**
**Hawthorne, NJ 07506**
**Phone: (201) 427-8200,**
**(305) 392-8100**
Key: M; Gr, Dr
Sub. of Albert Shotmeyer, T/A ASCO
Subs: Gas Pumpers of America Corp.
Motorgas Oil & Refg. Co.
Albert Shotmeyer, Pres. & CEO
E. J. Shotmeyer, Exec. VP & Sec.

**ASCO TERMINALS:**
**Syracuse, NY Terminal**
**Phone: (315) 471-1022**
Bernard Hourehan, Mgr.

**Hudson, NY Terminal**
**Catskill, NY Terminal**

**Fultonville, NY Terminal**
**Phone: (518) 828-9400**
William Wucher, Mgr.

**Newburgh, NY Terminal**
**Phone: (914) 561-6200**
Robert Speirs, Mgr.

**Wilmington, DE Terminal**
**Phone: (302) 652-1000**

**Gas Pumpers of America Corp.**
**1 Valley Street**
**Hawthorne, NJ 07506**
**Phone: (201) 427-8200, 423-1000,**
**(305) 392-8100**
Key: M-U Save; Gr, Dr
Sub. of Shotmeyer Oil Corp.
Albert Shotmeyer, CEO
Myron T. Holman, Pres.
Norman R. Steenstra, Exec. VP
Elizabeth J. Shotmeyer, VP

**Motorgas Oil & Ref. Corp.**
**1 Valley St.**
**Hawthorne, NJ 07506**
**Phone: (201) 427-8200, 423-1000**
Key: M; Gr, Dr
Sub. of Shotmeyer Oil Corp.
Albert Shotmeyer, CEO
Myron T. Holman, Pres.
Norman R. Steenstra, Exec. VP
Elizabeth J. Shotmeyer, VP

**■SICO COMPANY**
**15 Mount Joy St.**
**Mount Joy, PA 17552**
**Phone: (717) 653-1411**
Key: T, M; G, F, D, L
Sub. of The Sico Foundation
Sub: John G. Stumpf, Inc.
Franklin R. Eichler, Pres. & Treas.
Michael T. Reese, VP Mktg.
Charles W. Ricedorf, VP Opns.
Robert K. Shank, Sec.-Asst. Treas.
Edward F. Zercher, Asst. Sec.-Retail Mktg. Mgr.
Eugene W. Crider, Whlsl. Mktg. Mgr.
Phillip L. Veith, Svcs. Station Mktg. Mgr.
Gary Maxwell, Cust. Svcs. Mgr.

**■SIMON OIL CO.**
**1316 Main Street**
**Niagara Falls, NY 14301**
**Phone: (716) 285-9641**
Key: M; G-Sunoco, Mobil
Theodore Dimet, Pres.
Eugene Dimet, Exec. VP
Ken Kimmins, Gen. Sls. Mgr.
Peter Barber, C-Stores Supv.

**■SIMMONS OIL CORPORATION**
**8655 Via de Ventura**
**P.O. Box 4520**
**Scottsdale, AZ 85261**
**Phone: (602) 948-7250**
Subs: Simmons Crude Oil Co.
Simmons Refining Corp.
Simmons Terminal Corp.
Jerry Simmons, Pres. & CEO
Harold Mack, Exec. VP-Corp.
J. D. Wessling, CFO
Glenn Walker, VP & Treas.
Craig Robb, Controller

**Simmons Refining Corporation**
**P.O. Box 4520**
**Scottsdale, AZ 85261**
**Phone: (602) 948-7250**
J. D. Wessling, Pres.
Dan Ables, Sr. VP Mktg. & Supply
Bob Roehl, VP-Crude

**Rocky Mountain Division**
**P.O. Box 4520**
**Scottsdale, AZ 85261**
**Phone: (602) 948-7250**
Chuck Carlise, VP
Ted Rabban, Sls. Mgr.

**West Coast Division**
**5150 East Pacific Coast Highway**
**Suite 680**
**Long Beach, CA 90804**
**Phone: (213) 494-7377**
Peter Hughes, Supply & Distrib. Coordinator

**Northern Division**
**625 Central Ave. West**
**Suite 200**
**Great Falls, MT 59404**
**P.O. Box 1243**
**Great Falls, MT 59403**
Tom Robitaille, VP Mktg.
Alan Hobbs, Sls. Mgr.
Marcy Stinson, Mktg. Coordinator

**Simmons Crude Oil Company**
**P.O. Box 4520**
**Scottsdale, AZ 85261**
**Phone: (602) 948-7250**
Bob Roehl, VP

**■SINCLAIR MARKETING**
**P.O. Box 31825**
**Salt Lake City, UT 84131**
**Phone: (801) 363-5100**
Key: I; G, Fw, Dw, L
Sub. of Little America Ref. Co.
R. E. Holding, Pres.
R. G. Little, VP
Bob Beard, Mgr. Supply & Distrib.
M. L. Rensink, Mgr. Asphalt Sls.
John T. Gray, Credit Mgr.

**■SING OIL CO.**
**P.O. Box 1538**
**Thomasville, GA 31792**
**Phone: (912) 226-1211**
Key: M; G, D
L. H. Singletary, CEO
Richard Singletary, Pres.
T. E. Perry, Exec. VP
John L. Parker, VP Mktg.
W. D. Strickland, Retail Estate Mgr.

**■SINKLER, INC.**
**650 Knowles Ave.**
**Southampton, PA 18966**
**Phone: (215) 357-7100**
Key: M; F, D
Subs: Yardley Fuel Oil Co.
Larry Young Inc.
B & S Terminals Inc.
A. William Woosnam, Jr., Pres. & CEO
Douglas E. Woosnam, Exec. VP & Treas.
Ross E. Stempel, Jr., Sec.
Richard Greim, Asst. Sec.-Treas.
Eugene Michelson, Sls. Mgr.
Ray Spada, Credit Mgr.

**■SITE OIL CO.**
**7755 Carondelet**
**St. Louis, MO 63105**
**Phone: (314) 725-4321**
Key: M; Gr, Fr
Alvin Siteman, Pres.
Chris Kemph, VP Mktg.

**■SMITH-SHAFER OIL CO.**
**P.O. Box 680**
**Rockford, IL 61105**
**Phone: (815) 965-6767**
Key: M; G, Fr, Dr
Ernst S. Shafer, Pres. & CEO
C. Gordon Smith, Sec.

**■SOMERSET REFINERY**
**520 Monticello St.**
**Somerset, KY 42501**
**Phone: (606) 679-6301**
Key: R-M; G, F, D, L
W. T. Walker, Pres.
T. S. Ballance, VP
Cy Waddle, VP
Merrel Henderson, VP, Sls. & Distrib.

**■J. R. SOUSA AND SONS**
**29 Andover St.**
**Danvers, MA 01923**
**Phone: (617) 777-1500**
**TWX 710-347-0889**
Key: M; G-BP, D, F, L
Subs: Sousa Oil Co.
Joseph J. Sousa, Pres.
Jerome R. Sousa, Jr., Treas.
T. F. Winstanley, Mgr., Sup. & Distrib.
Louis Arvenites, New Eng. Sls. Mgr.
James Whitaker, Albany Div. Mgr.
Gary Kuzcek, Poughkeepsie Div. Mgr.
Lawrence King, Compt.

**Sousa Oil Co.**
**P.O. Box 935**
**Troy, NY 12181**
**Phone: (518) 274-0600**

**■SOUTHERN COUNTIES OIL CO.**
**1011 Laguna Rd.**
**Tustin, CA 92680**
**Phone: (714) 544-7140**
Key: M; G, D, L
Frank H. Greinke, Pres. & CEO
Richard Becktel, Exec. VP Whlsl.
Frank P. Greinke, Exec. VP-Retail
Robert Kennedy, Mktg. VP

**■SOUTHERN OIL CO.**
**P.O. Box 1278**
**Suffolk, VA 23434**
**Phone: (804) 539-2374**
Key: T, M; G, D
C. P. Holland, Chmn.
David Holland, Pres.
Virginia B. Mehalko, Sec.-Treas.

**■SOUTHERN PETROLEUM CO.**
**(Name changed to Belcher Oil Co. of Tennessee: See Coastal Oil Corp.)**

**■SOUTHERN UNION REFINING CO.**
**P.O. Box 980**
**Hobbs, NM 88240**
**Phone: (505) 397-3384**
Key: T-R-M; G, Fw
Sub. of Southern Union Co.
Randolph Scott, Pres.
W. S. "Bill" Champlin, Sr. VP, Supply & Distrib.
Bill McDonnell, VP Ref. Eng.
Ron Grossarth, VP Mktg.
Frederick E. Hobbs, Controller
Russell Buss, VP Gas Plants

**■THE SOUTHLAND CORP.**
**See Citgo Petroleum Corp.**

**■SOUTHLAND OIL CO.**
**5170 Galaxie Dr.**
**P.O. Box 16668**
**Jackson, MS 39236**
**Phone: (601) 981-4151**
Key: R-M; G, F, D, L
Chas. W. Else, Chmn.
Roger G. McGrath, III, Pres.
W. D. Saxon, Mgr., Independent Sls.
R. J. Nail, Mgr., Branded Sls.
Shelby Bridges, Mgr., Bulk Plant Sls.
G. P. Montgomery, Mgr., Sup. & Distrib.
Clyde Walters, Mgr., Asphalt Sls.
Charles Barrack, Credit Mgr.

**■SPARTAN PETROLEUM CO.**
**S. Pine St. Ext.**
**P.O. Box 1170**
**Spartanburg, SC 29304**
**Phone: (803) 585-3416**
Key: M-Chevron; Gw, F, L
R. E. Mitchell, Pres.
G. E. Mitchell, VP
W. T. Hope, Jr., Sls. Mgr.
M. L. Leverette, Jr., Sec.

**■SPEEDWAY PETROLEUM CO.**
**237 Lunenburg St.**
**Fitchburg, MA 01420**
**Phone: (617) 345-4688**
Key: M; G, F, L
Donald R. Tucker, Pres. & CEO
Jeff Bridgeman, Mgr., Retail Sls.
June LeMieux, Credit Mgr.
Richard Grant, Opns. Mgr.

**■THE SPENCER COMPANIES INC.**
**P.O. Box 1608**
**Huntsville, Alabama 35807**
**Phone: (205) 533-1150**
Key: T-M AMOCO, CITGO; G, D, L. (Convenience food stores)
Subs: Alabama Oil Company
Midsouth Oil Company
Midsouth Ice Company
Spencer Food Stores
Guy J. Spencer Jr., Pres. & CEO
Robert E. Adams, Exec. VP
W. A. Henderson, Sr. VP
Sarah Spencer Chappell, VP
Fred C. Reid, VP
William L. Standridge, Sec. Treas.

**Alabama Oil Company**
**P.O. Box 1608**
**Huntsville, AL 35807**
**Phone (205) 533-1150**
W. A. Henderson, Sr. VP, Gen. Mgr.

**Midsouth Oil Company**
**P.O. Box 583**
**Fairfield, AL 35064**
**Phone (205) 744-0020**
W. A. Henderson, Sr. VP, Gen. Mgr.

**Spencer Food Stores**
**P.O. Box 583**
**Fairfield, AL 35064**
**Phone: (205) 744-0020**
Fred C. Reid, VP, Gen. Mgr.

**Midsouth Ice Company**
**P.O. Box 1608**
**Huntsville, AL 35807**
**Phone: (205) 533-1150**
Robert E. Adams, Exec. VP, Gen. Mgr.

**■M. SPIEGEL & SONS OIL CORP.**
**P.O. Box 833**
**Tuxedo, NY 10987**
**Phone: (914) 351-4709**
Key: M; G, F, D, L
Sub: SOS Oil Corp.
George Spiegel, Pres.
Richard Spiegel, Sec.-Treas.
Albert Silberlicht, Gen. Mgr.
Linda Wilkinson, Off. Mgr.

■**C. H. SPRAGUE & SON CO.**
**One Parade Mall**
**Portsmouth, NJ 03801**
**Phone: (603) 431-1000**
Key: T-R-M; F, Resid.
Sub. of Axel Johnson Co., New York
Sub. Petroleum Heat & Power Co. of R.I.
H. M. Powers, Pres. & CEO
A. W. Christo, VP, Trans. Supp.
W. Hallowell, VP, Term. Opns.
W. Wells, VP, Fuel Oil Sls.
E. Bulmer, Coal Bulk Hndlg. Sls. Mgr.
K. Chute, CFO

**Main Div. Mack's Point**
**Searsport, ME**
J. B. Probert, Div. Mgr.
C. Holmes, Term. Supvr.

**New Hampshire Div.**
**290 Gosling Rd.**
**Portsmouth, NH 03801**
R. W. Hill, Div. Mgr.
J. H. Downey, Lt. Oil Div. Mgr.
A. LaBerge, Term. Supvr.

**Rhode Island Div.**
**375 Allens Ave.**
**Providence, RI**
W. G. Low, Jr., Div. Mgr.
J. Dick, Term. Supvr.

**Petroleum Heat & Power Co. of Rhode Island**
**Providence, RI**
R. J. Malloy, Pres.

■**SPUR PRODUCTS, DIV. OF ULTRAMAR CANADA INC.**
**C.P. 499, 1 West Mount Square**
**Montreal, Quebec H3Z 2Z6**
**Phone: (514) 931-8292**
Key: I; G, Fw, D, Lr
Sub. of Ultramar Canada Inc.
Subs: Canadian Ultramar Ltd.
N. DiTomaso, Div. Pres.
G. Archambault, Div. VP

■**STANDARD CYCLE & AUTO SUPPLY CO. (SCASCO)**
**22 Rowley St.**
**Winsted, CT 06098**
**Phone: (203) 379-3322**
Key: T-M; G-Texaco, D, F-Texaco, Exxon, L
Subs: Della Donne Oil Co.
Dodd Oil Co.
Home Oil
Sandmeyer Oil Co.
Milton Dolinsky, Pres. & CEO
David M. Dolinsky, Exec. VP
Geo. Mesloh, VP, Mktg.

■**STANDARD OIL COMPANY OF CALIFORNIA**
**225 Bush Street**
**San Francisco, CA 94104**
**Phone: (415) 894-7700**
G. M. Keller, Board Chmn.
D. L. Bower, Vice Chmn. of Board
J. R. Grey, Pres.
D. N. Maytum, Sec.
R. E. Willoughby, Treas.
G. R. McGregor, Asst. Treas. & Gen. Credit Mgr.

■**CHEVRON U.S.A. INC.**
**575 Market Street**
**San Francisco, CA 94105**
**Phone: (415) 894-7700**
Subsidiary of Standard Oil Company of California
K. T. Derr, Pres. & Chief Exec. Offcr.
W. J. Price, Sr. VP, Mfg., Supply & Mktg.
M. M. Smith, VP, Mktg.

**Marketing**
L. Taigen, Gen. Mgr., Mktg.-Sls.
W. D. Pugh, Gen. Mgr., Mktg.-Field
J. F. McGuire, Mgr., Retail Div.
W. C. Little, Mgr., Reseller Div.
D. W. Callahan, Mgr., Commrc'l & Indus. Div.
S. V. Drum, Mgr., Aviation Div.
R. G. Congdon, Mgr., Asphalt Div.
H. R. Hammerman, Mgr., Advertising
G. J. Wyllie, Mgr., Mktg. Research
L. L. Day, Mgr., Pricing & Evaluation
J. D. Garber, Mgr., Mktg. Planning & Svcs.
A. D. Cornwell, Credit Mgr.

**Hawaii Division**
**900 Fort St. Mall**
**Suite 1700**
**Honolulu, HI 96813**
C. R. Layer, Mgr.-Sls.
R. M. Airone, Mgr.-Opns.

**Northwest Division**
**1301 Fifth Avenue**
**Seattle, WA 98101**
W. W. Cole, Mgr.-Sls.
A. O. Rolseth, Mgr.-Opns.

**West Central Division**
**Two Annabel Lane, Suite 200**
**San Ramon, CA 94583**
T. E. Walter, Mgr.-Sls.
D. Moller, Mgr.-Opns.

**Southwest Division**
**1201 South Beach Boulevard**
**La Habra, CA 90631**
R. B. Larner, Mgr.-Sls.
H. H. Haburn, Mgr.-Opns.

**Rocky Mountain Division**
**Galleria No. Tower II**
**700 So. Colorado Boulevard**
**Glendale, CO 80222**
A. H. Ward, Jr., Mgr.-Sls.
J. T. Graff, Mgr.-Opns.

**Northeast Division**
**1200 State Street**
**Perth Amboy, NJ 08861**
D. N. Perkins, Mgr.-Sls.
W. B. Wilbourn, Mgr.-Opns.

**East Central Division**
**Starks Building**
**River City Mall and Muhammad Ali**
**Louisville, KY 40202**
J. J. Whitehead, Mgr.-Sls.
C. C. Frazier, Mgr.-Opns.

**Southern Division**
**340 Interstate North Pkwy.**
**Suite 200-P.O. Box 1706**
**Atlanta, GA 30339**
F. L. Jones, Mgr.-Sls.
J. M. Smith, Mgr.-Opns.

**Southeast Division**
**One N. University Dr.**
**Plantation, FL 33324**
E. O. Smith, Mgr.-Sls.
J. A. Polk, Mgr.-Opns.

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**Chevron Canada Ltd.**
**1050 West Pender Street**
**Vancouver, B.C. V6E 3T4**
**Phone: (604) 668-5300**
Sub. of Standard Oil Company of California
Subs: Furnace Oil Sales Limited
  Chevron Asphalt Limited
J. P. McIntyre, Pres.
D. R. Kestell, VP, Mktg.
K. S. McRae, Mgr., Whlsl. Sls.
R. L. Farbridge, Mgr., Retail Sls.
R. D. Jolly, Mgr., Public Affairs

**■STANDARD OIL CO. (Indiana)**
**200 East Randolph Drive**
**Chicago, IL 60601**
**Phone: (312) 856-6111**
Key: I; G, D, F, LPG, L
Subs: Amoco Oil Co.

**Amoco Oil Co.**
**200 East Randolph Drive**
**Chicago, IL 60601**
**Phone: (312) 856-6111**
L. D. Thomas, Pres.
P. D. Collier, Exec. VP
S. G. Van Sickle, Mktg. VP
J. C. Bergman, Gen. Mgr. Mktg.
T. J. McJoynt, Mgr. Mktg. Ent.
J. A. Stitzell, Mgr. Light Oils
G. F. Shackelford, Adv. Mgr.
R. H. Markley, Mgr. Planning & Eval.

**■STANDARD OIL CO. (Ohio)**
**Midland Bldg.**
**Cleveland, OH 44115**
**Phone: (216) 575-4141**
Key: I; G, D, F, LPGw, L
Sub. (53%) of British Petroleum Ltd.
Subs: BP Oil, Inc.
A. W. Whitehouse, Chmn.
J. R. Miller, Pres.
Frank E. Mosier, Sr. VP Crude Trading Pres. Sohio Oil
Hugh D. Hanna, Mktg. VP-Retail
J. D. Campbell, Mktg. VP-Whlsl.
H. T. Bubb, Gen. Sls. Mgr.-Retail
R. M. Donaldson, VP, Govt. & Pub. Rel.

**Marketing Dept.**
Hugh D. Hanna, VP Retail Mktg.
J. D. Campbell, Jr., VP Whlsl. Mktg. & Distrib.
H. T. Bubb, Sls. Mgr.
N. S. Bartlett, Pricing Mgr.
R. J. Pilari, Mgr., TBA Sls.
C. C. Vittian, Mgr., Lube Mktg.
J. P. Donnell, Mgr., Mountaineer Carbon Co.

**Boron Oil Co. and BP Oil Co.**
**Midland Bldg.**
**Cleveland, OH 44115**
**Phone: (216) 575-4141**
Refer to Sohio listing above as marketing managers of these companies are the same as in the parent company.

**■STAR OIL CO.**
**2929 Lapeer Rd.**
**Port Huron, MI 48060**
**Phone: (313) 985-9586**
Key: M; G, F, D, L
F. C. Kaiser, Chmn.
C. A. Kellerman, Pres.
Ed Shreiner, VP-Secty.

**■STAR SERVICE & PETROLEUM CO.**
**P.O. Box 1344**
**St. Louis, MO 63043**
**Phone: (314) 434-7100**
Key: M; Gr, Dr
Sub: Pep Gas & Wash
John E. Henderson, Pres. & CEO
J. W. Lyles, VP Mktg.
Clayton "Lou" Litillier, VP Supply & Distrib.

**■STEUART PETROLEUM CO.**
**4646 40th St., N.W.**
**Washington, DC 20016**
**Phone: (202) 537-8900**
Key: M, 0-terminal operator; G, F, D, L
Sub. of Steuart Investment Co.
Leonard P. Steuart, III, Pres. & CEO
Hervey M. Triplett, Sr. Mktg. VP
Wm. E. Meiers, Sr. VP Supply
Thomas V. Gaffney, VP Supply
Harry G. Youngling, VP Retail Fuels
Thomas W. Pryor, VP Finance
F. Peter Horrigan, VP Motor Fuels
Jerry Waggoner, Credit Mgr.
Michael York, Gen. Mgr. Lubes

**■STORMY OIL CO.**
**P.O. Box 1841**
**St. Cloud, MN 56302**
**Phone: (612) 251-6272**
Key: M; G, F, D, L
Sub. of St. Augusta Oil Co.
Ronald Vukelich, Pres.
Patrick Tracy
James Tracy
Leslie Vukelich, Secty.

**■J. D. STREETT & CO.**
**144 Weldon Pkwy.**
**Maryland Heights, MO 63043**
**Phone: (314) 432-6600**
Key: M; G, Fw, D, L
Newell A. Baker, Pres. & Chmn.
Kenneth A. Baker, VP
James W. Bernthal, Mgr. Supply & Distrib.
Hugh Watson, VP
Elmer J. Keitel, Mgr. Priv. Packaging & Anti-Freeze
Dan O. Koch, Mgr. Constr. & Opns.

**■SUBURBAN OIL CO.**
**1301 W. 22nd St.**
**Oak Brook, IL 60521**
**Phone: (312) 325-9526**
Key: M; G, F, D
John H. Curran, Pres.
Clyde F. Todd, Jr., Mktg. VP
James W. Johnston, Secty.
Geo. J. Satala, Mgr. Svcs.
P. G. Marra, Mgr. Adm. Svcs.

**■SUBURBAN PROPANE GAS CORP.**
**334 Madison Ave.**
**Morristown, NJ 07960**
**Phone: (201) 540-0300**
Key: I; G, D, F, LPG, L
Subs: Plateau, Inc.
Mark J. Anton, Pres., Chmn. & CEO
John H. Nichols, Jr., Exec. VP
William Owen Jr., VP Controller
Gerald M. Becker, Asst. VP
Robert M. Plante, Asst. VP
Virginia L. Molino, Sec. Gen. Counsel

**■SUMRALL OIL SERVICES**
**P.O. Box 525**
**Bay Springs, MS 39422**
**Phone: (601) 764-2135**
Key: T, M; G, D
James Sumrall, Pres.
Betty Sumrall, Secty. Treas.
W. H. Jackson, Comptroller
J. D. Wilkins, Mktg. VP

**■SUN CO.**
**100 Matsonford Rd.**
**Radnor, PA 19087**
**Phone: (215) 293-6000**
Key: I; G, D, F, L
T. A. Burtis, Chmn. & CEO
R. McClements, Jr., Pres. & COO
G. E. Hillhouse, Exec. VP
R. P. Hauptfuhrer, Group VP Explor. & Prod.
J. P. Neafsey, Sr. VP Finance
B. N. Rutherford, Sr. VP Human Resources & Admin.
H. T. Snider, Sr. VP Planning & Public Affairs
D. P. Walsh, Sr. VP & Gen. Counsel
W. J. Magers, Sr. VP
R. W. Ince, Group VP Energy Minerals
R. H. Campbell, Group VP Ref. & Mktg.
R. A. Baillie, VP Tech.
T. D. Hadley, Jr., VP Materials Mngmnt. & Admin.
B. C. Lindsay, Group VP Indus. Svcs.
A. T. Olenzak, VP Planning
P. F. Waitneight, VP Financing
C. A. Wheeler, Jr., VP Govt. Rlns.
W. S. Woods, Jr., VP Investments
D. J. Ainsworth, Corp. Secy.
R. M. Aiken, Jr., Comptroller
R. A. Paul, Jr., Treas.
A. S. Martin, Jr., Gen. Auditor

**Sun Refining & Marketing Co.**
**10 Penn Center**
**1801 Market Street**
**Philadelphia, PA 19103**
**Phone: (215) 977-3000**
Subs: Mohawk Valley Oil, Inc.
  Herr Gass & Oil
  Mid-State Oil Co.
  Kelly Company
  Moutour Auto Service Co., Inc.
  H. H. Palmer, Inc.
  Stop-N-Go Foods, Inc.
  Mascot Petroleum Co.
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H. Alonso, VP
H. Z. Shelton, VP Finance
J. D. Helms, VP Planning
D. E. Knoll, VP Sunoco Mktg.
N. J. Neuhausel, VP Human Res.
J. K. Obold, VP Legal & Gen. Counsel
J. V. D. Fear, VP Fuels
J. D. Helms, VP Chem.
David C. Rippy, VP Opns.
G. D. Kirk, VP Opns.

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**Framingham, MA 01701**
**Phone: (617) 875-1371**

**Washington Div.**
**5900 Princess Garden Pkwy.**
**Lanham, MD 20706**
**Phone: (301) 459-2050**

**Mid-American Div.**
**23999 Northwestern Hwy.**
**Metro-Center Bldg., Suite 260**
**Southfield, MI 48075**
**Phone: (313) 358-2540**

**Philadelphia Div.**
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**Wayne, Pa 19087**
**Phone: (215) 964-2260**

**■SUNNY SERVICE STATIONS**
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**Eugene, OR 97440**
**Phone: (503) 746-9614**
Key: T-M; G Sunny, D
Alan O. Maxwell, Pres.
Ellis Emery, VP
Thomas Golden, VP

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**56 Wellesley Street West**
**Toronto, Ontario M5S 2S4**
**Phone: (416) 924-4111**
Key: T-R-M; G-Sunoco, D, F-Sunoco, LPG, L
Sub. of Suncor Inc.
W. R. Loar, Pres. & CEO
Stanley A. Cowtan, Exec. VP, Sunoco Group
C. K. Bolend, VP Mktg.
W. W. Gibson, Mgr. Rtl. Sls. Gas
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**London, Ontario**
Ron Cordiner, Mgr.

**Ontario Retail Reg.**
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Max L. Dawson, Mgr.

**Quebec Retail Reg.**
**750 Boulevard Laurentian**
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Ray Larocque, Mgr.

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**P.O. Box 2498**
**Panama City, FL 32401**
**Phone: (904) 769-1661**
Key: M; Gr, Dr
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Ken White, Exec. VP
Jim Burkhalter, Dir. Gasoline Mktg.
Ralph Stephens, Dir. Purchasing

**■SUNYS PETROLEUM INC.**
**200 Elgin St., Suite 905**
**Ottawa, Ontario K2P 1L5**
**Phone: (613) 234-3588**
Key: T-M; G, F, D, LPG, L
Subs: Cencan Petroleum Limited
Bertram Loeb, Chmn.
Kenneth McCrimmon, Pres.
William McInerney, VP
William Dunlop, Controller

**■SUPER OIL CO.**
**P.O. Box 3039 CRS**
**Johnson City, TN 37601**
**Phone: (615) 926-2126**
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Robt. Leonard, Jr., Pres. Opns. Mgr.
Robt. Leonard, Exec. VP
Don Haynie, Supr.

**■SUPREME PETROLEUM CO. OF NJ**
**45 Rt. 206 So.**
**Somerville, NJ 08876**
**Phone: (201) 722-6555**
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Marc Baldinger, Pres.
Fred Umar, Gen. Sls. Mgr.

**■SWANN OIL**
**67th St. & Schuylkill River**
**Philadelphia, PA 19153**
**Phone: (215) 492-8000**
Key: T-M; G, F
Subs: Asphalt & Petroleum Co.
  Eastern Oil Transport
  Northeast Industrial Oil Corp.
  Swann Oil Inc. of Philadelphia
  Swann Oil Inc. of North Carolina
  Swann Oil of Virginia
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Edmund M. Cameron, VP Asphalt & Petroleum Group
Edward J. Gallagher, VP Opns.
Michael J. Burke, VP Mktg.
J. B. Maher, VP Finance
G. R. Ritter, Controller

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**620 So. Front St.**
**Ironton, Oh 45638**
**Phone: (614) 532-9145**
Key: M-Rich; Gr
Subs: Rich Oil Corp.
  Tanco, Inc.
  Rich of Ohio
  Rich of West Virginia
  Rich Terminal Co.
R. B. Tanner, Pres. & CEO

**■TARGET ENTERPRISES (CAL.) INC.**
**12739 Lakewood Blvd.**
**Downey, CA 90240**
**Phone: (213) 927-5339**
Key: M; Gr, Dr

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**Yonkers, NY 10710**
**Phone: (914) 478-2220**

**161 East 42nd St., 31st Fl.**
**New York, NY 10017**
**Phone: (212) 687-7297**
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  Tedone Fuel
  Terrone Fuel
  Bello Fuel
  Empire Fuel
  Mt. Pleasant Fuel
  Viking Petroleum
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Ben Davis, Credit Mgr.
Carl Tarczynski, Mgr. Gasoline Marketing
William Stevens, Mgr. National Accounts

**KEY**

| | |
|---|---|
| I | Integrated |
| T | Transporter |
| R-M | Refiner-marketer |
| M | Marketer |
| G | Gasoline, wholesale, retail |
| F | Fuel Oil, wholesale, retail |
| D | Diesel, wholesale, retail |
| LPG | Liquefied petroleum gas wholesale, retail |
| L | Lubricants, wholesale, retail |
| w | wholesale only |
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**55 Waugh Dr., Suite 700**
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Triad Oil Co
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Direct Oil Corp
Mitchell Supreme Fuel Co
Q-S Petroleum Inc
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Key: I, G, D, F, LPG, L
Subs: Tesoro Gasoline Marketing Co
Tesoro Petroleum Distributing Co
Tesoro Alaska Petroleum Co
Tesoro Refining, Mktg. & Supply Co
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**Beverly Hills, CA 90212**
**Phone: (213) 278-2160**
Key: M, Gr
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**2000 Westchester Ave.**
**White Plains, NY 10650**
**Phone: (914) 253-4000**
Key: I, G, F, LPG, L
Subs: Texaco Canada Inc

**Texaco U.S.A.**
**1111 Rusk Ave.**
**Houston, TX 77002**
**Phone: (713) 650-4000**
J. W. Kinnear, Pres
Robert R. McCall, Exec. VP

**Texaco, Canada**
**90 Wynford Drive**
**Don Mills, Ontario M3C 1K5**
**Phone: (416) 445-7800**
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J. L. Morrison, Exec. VP
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**Phone: (713) 650-1200**
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K. L. Goodhouse, Mktg. Representative
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**Phone: (615) 459-0083**
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**(Formerly Rebel Oil Co.)**
**P.O. Box 13310**
**Eight Mile, Alabama 36613**
**Phone: (205) 457-6827**
B. M. Ponder, Gen. Mgr

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**12625 Calloway Cemetery Rd.**
**Euless, TX 76039**
**Phone: (817) 267-2840**
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Sub. of Armada International Corp
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Cud Baird, Pres
Anthony Wright, Exec. VP

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**Corpus Christi, TX 78403**
**Phone: (512) 882-3311**
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Bill Arrington, Mgr. Fuels Div
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**Fort Wayne, IN 46895**
**Phone: (219) 432-9407**
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Sub: Smith Petroleum Inc
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James Couture, Gen. Sls. Mgr
Lonnie Wilson, Gen. Mgr.—Smith Petroleum Inc

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**Louisville, KY 40223**
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**10000 Lakewood Blvd.**
**Downey, CA 90240**
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Sub: Golden West Ref. Co
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Robert J. Drew, Exec. VP Opns
Jack Elgin, Sr. VP Finance
Tom Flesh, VP & Gen. Counsel
Taz Latham, VP Finance
Van Tarver, VP Convenience Stores

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**Santa Fe Springs, CA 90670**
**Phone: (213) 921-3581**
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Roger Kemple, Sr. VP Opns. & Mktg
Jack Elgin, Sr. VP Finance
Barry Berkett, VP & Gen. Counsel
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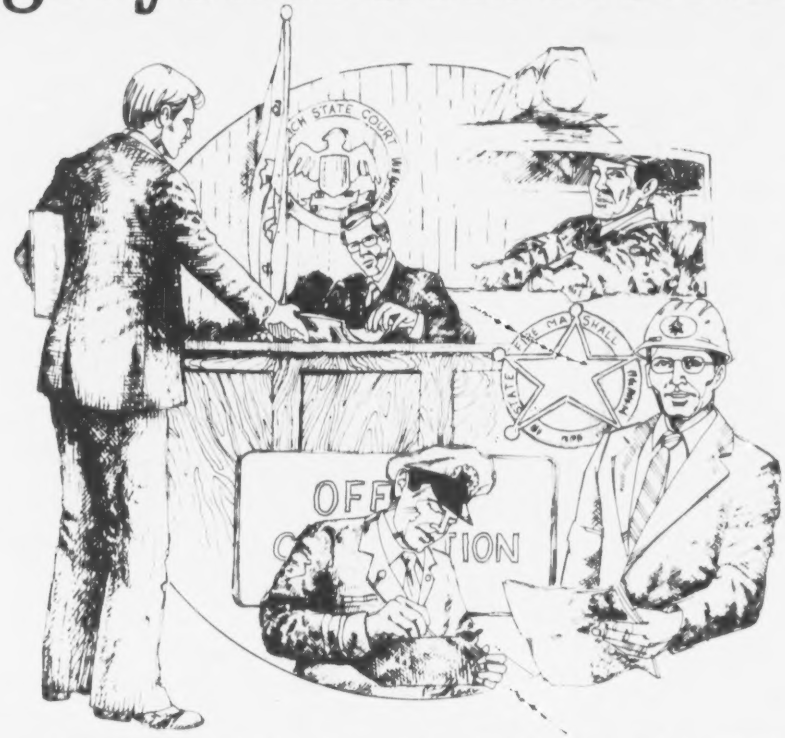

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**Los Angeles, CA 90036**
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**P.O. Box 795**
**Lincolnton, NC 28092**
**Phone: (704) 735-3092**
Key: M; G, F, D, L
Subs: Eaton Oil Co.
Hugh Paschal Oil Co.
Times Oil Co. of Reidsville
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**Topeka, KS 66601**
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William A. Floyd, VP Mktg. & Supply
Jack G. Drosdick, VP Ref.
Herbert B. Gregory, Gen. Mgr. Whsl Mktg.
George E. Ogden, Gen. Mgr. Prod. Supply and Distrib.
Peter Sutton, Gen. Mgr. Crude Oil Supply

**Pacific N.W. Region**
**9900 S.W. Wilshire—Suite 112**
**Portland, OR 97225**
R. W. Bigger, Region Mgr.

**Pacific S.W. Region Office**
**15910 Ventura Blvd.—Suite 923**
**Encino, CA 91436**
L. V. Avakian, Region Mgr.

**Southwest Region Office**
**400 East North Belt Dr.—Suite 205**
**Houston, TX 77060**
D. J. Layton, Region Mgr.

■**TOTAL PETROLEUM, INC.**
**999 18th Street, Suite 2201**
**Denver, CO 80202**
**Phone: (303) 291-2000**
Key: I; G-Total, APCO, D, F-Total, APCO, LPGw, L
Subsidiary of Total Petroleum (N.A.) Ltd.
Philippe Dunoyer, Pres. & CEO
K. R. Buckler, Exec. VP Petro. Prod.
J. L. Kramer, VP Whlsl., Mktg. & Prod. Supply

**Retail Division**
W. B. Heiland, VP Retail, Mktg.
W. Wilson, Western Region Mgr.
L. Resseguie, Eastern Region Mgr.
D. Strong, Central Region Mgr.

**Distributor & Industrial Division**
W. L. Gooding, General Mgr.
H. T. Fisher, Branded Distrib. Mgr.
J. L. Steere, Unbranded & Industrial Sls. Mgr.

**TBA Division**
S. L. Shofner, Mgr.

**APCO Division**
C. M. Perry, Central Region Mgr.
D. G. Wright, Gen. Mgr.
M. C. Peterson, Northern Region Mgr.

■**TOWN PUMP AND AFFILIATES**
**600 So. Main St.**
**Butte, MT 59701**
**Phone: (406) 723-5410**
Key: T-M; G, D, LPG, Lr
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J. M. Kenneally, VP Whlsl. & Mktg.
Ron R. Roos, Gen. Mgr.
Daniel J. Kenneally, Opns. Mgr.

■**TRANSIT OIL CO.**
**1002 S. Brook St.**
**Louisville, KY 40203**
**Phone: (502) 584-0101**
Key: M; G, D, F
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Robert Don Asbury, Pres.
Keith Miller, Gen. Sls. Mgr.

■**TRAVELERS PETROLEUM**
**P.O. Box 1426**
**2314 N. Main Street, Suite 224**
**Anderson, SC 29622**
**Phone: (803) 225-4676**
Key: M; Gr-Self Way Texaco, Dr, Lr
Sub: Self Way Food Stores
Irvin L. Cauthen, Chmn.
Joe F. Brandt, Pres.
Robt. A. League, Jr., VP
Hamish Turner, Jr., VP

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**1463 Lamberton Rd.**
**Trenton, NJ 08611**
**Phone: (609) 695-1220**
Key: M; Fw, Dw
Cyril P. Forbes, Pres. & CEO
John R. Knapsack, Exec. VP

■**TRESLER OIL CO.**
**4050 River Rd.**
**Cincinnati, OH 45204**
**Phone: (513) 347-1234**
Key: M; Gw, Dw, Fw, Lw
Sub. of Ashland Oil, Inc.
James C. Krumme, Pres.
Donald P. Krumme, Sr. VP
Tony Elsass, Gen. Sls. Mgr.
Lynn Ernst, Asst. VP, Opns.

■**TRITON INC.**
**P.O. Box 47631**
**Atlanta, GA 30362**
**Phone: (404) 457-7271**
Key: M; G, D
T. V. Patton, Pres. & CEO
Dennis Gagnon, Exec. VP Opns.
Donald R. Gilliam, Exec. VP Fin.
J. L. Conine, Sr. VP Real Estate

■**TRUAX CORP.**
**1760 S.W. 3rd**
**Corvallis, OR 97330**
**Phone: (503) 758-1500**
Key: T-M; G-Shell, D, F, L
Sub: Truax Oil Inc.
John Truax, Pres.
Jack Todd, Exec. VP
Bill Cooksen, Sls. Mgr.

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**Johnstown, NY 13095**
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Sub. of J. W. Buhrmaster Co.
James Buhrmaster, Pres.
Herbert Wilde, Mgr.

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**400, 609-14 Street N.W.**
**Calgary, Alberta, Canada T2N 2A1**
**Phone: (403) 263-6202**

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**Montvale, NJ 07645**
**Phone: (201) 573-0300**
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Sub. of Ultramar American, Ltd.
Subs: Ultramar PCL
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J. T. Tower Jr., Sr. VP
R. D. Zelek, VP Mktg.
P. J. Colapinto, VP Supply
J. C. Foster, VP Opns.
D. F. Walton, VP Fin.
W. L. Deloria, Gen. Mgr. Sls.
G. Graham, Gen. Mgr. Motor Fuels

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**P.O. Box 7600**
**Los Angeles, CA 90017**
**Phone: (213) 977-7600**
Key: I; G, D, F, LPG, L
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W. S. McConner, Sr. VP & Pres. Union 76 Div.
C. R. Warnock, VP Mktg. Western Reg.
T. W. Matthews, VP Mktg. Eastern Reg.
T. R. Seden, Adv. Mgr.
Karen Sikkema, Dir. Corp. Communications

**Union 76 Division**
**Union Oil Co. of Calif.**
**1650 East Golf Rd.**
**Schaumburg, IL 60196**
**Phone: (312) 885-7676**
Key: I; G, F, LPG, L
W. S. McConnor, Pres. (Located in Los Angeles)
R. C. Beach, VP Crude Supply Dept. (Los Angeles)
W. F. Krick, Reg. Mgr. Gov't. Relations
R. N. Creek, VP Admin.
G. H. O'Leary, Gen. Mgr. Credit Card Opns. (Located in San Francisco)
W. E. Branstrom, Dir. Planning (Located in Los Angeles)
T. R. Seden, Mgr. Adv. (Los Angeles)
J. W. Groesch, Mgr. Mktg. Information
R. E. Robbins, VP Nat'l. Mktg.
C. C. Petray, Gen. Mgr. Truck Industry & Interstate Sls.
J. P. Hill, Jr., Gen. Mgr. Nat. Gas Liquids (Houston)
A. A. Brisson, Mgr. Commc'l Credit

**Eastern Region**
**1650 East Golf Rd.**
**Schaumburg, IL 60196**
**Phone: (312) 885-7676**
R. F. Nootbaar, Jr., Sr. VP Refg. & Mktg.
T. W. Matthews, VP Mktg.
R. R. Runge, VP Refg. & Trans.
J. A. Mihalek, Gen. Mgr. Mktg.
P. D. Fisler, Gen. Mgr. Mktg. Distrib.
D. C. Eichten, Reg'l. Mgr. Interstate Auto Truck Stops
M. S. Podgurski, Mgr. Mktg. Planning
R. H. Smith, Mgr. Mktg. Engr. & Constr.
H. A. Kunberger, Mgr. Mktg. Planning & Admin.
A. D. Littlejohn, Mgr. Jobber & Distributor Dvlpmt.
W. H. Kees, Mgr. Mktg. Trans.
John C. Griffin, Mgr. Admin. Svcs.
W. J. Myers, Mgr. Mktg. Equip.

**Atlanta (GA 30302)**
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R. J. Mertz, Div. Sls. Mgr.

**Chicago**
**2060 Stonington Ave.**
**Hoffman Estates, IL 60172**
F. L. Walker, Div. Sls. Mgr.

**Columbus (OH 43229)**
**2700 E. Dublin**
**Granville Rd., Suite 400**
W. A. Sawyer, Div. Sls. Mgr.

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**Los Angeles, CA 90054**
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C. R. Warnock, VP Mktg.
E. P. Barnett, VP Refg. & Supply
W. A. Fyock, Gen. Mgr. Mktg.
J. H. Vanderveen, Mgr. Whlsl. Sls. & Supply
L. L. Krohn, Mgr. Mktg. Distrib.
C. C. Row, Mgr. Mktg. Real Estate
D. F. Charles, Mgr. Purchasing
J. W. Mullen, Mgr. Mktg. Admin.

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R. D. Burnham, Div. Sls. Mgr.

**Los Angeles Div.**
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**Los Angeles, CA 90010**
J. M. Peck, Div. Sls. Mgr.

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**Seattle, WA 98121**
D. W. Lamb, Div. Sls. Mgr.

**Continental Div.**
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**San Diego, CA 92108**
J. C. Robertson, Div. Sls. Mgr.

**Hawaii Dist.**
**841 Bishop St., Suite 2204**
**Honolulu, HI 96813**
W. M. Schreve, Dist. Sls. Mgr.

**Union Chemicals Div.**
**Union Oil Co. of Calif.**
**461 So. Boylston St.**
**Los Angeles, CA 90017**
**Phone: (213) 486-7600**
Key: M; Petrochemicals
T. C. Henderson, Pres.
K. L. Openshaw, Sr. VP Carbon
L. S. Pierson, Sr. VP Nitrogen
O. C. Mauthe, Adv. Mgr.

**Petrochemical Group**
**1345 N. Meacham Rd.**
**Schaumburg, IL 60196**
**Phone: (312) 885-5450**
N. E. Lynam, Sr. VP
A. F. Schroeder, Mktg. VP

**Regions**

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**67 Walnut Ave.**
**Clark, NJ 07066**
J. C. Maher, Gen. Mgr.

**Midwestern Reg.**
**1650 E. Golf Rd.**
**Schaumburg, IL 60196**
F. S. Bartholomew, Gen. Mgr.

**Southeastern Reg.**
**17 Executive Park Dr., N.E.**
**Atlanta, GA 30329**
G. F. Davies, Gen. Mgr.

**Southwestern Reg.**
**1100 Milam Bldg., Suite 2675**
**Houston, TX 77002**
C. E. Cook, Gen. Mgr.

**Western Reg.**
**14445 Alondra Blvd.**
**La Mirada, CA 90638**
D. R. Love, VP & Gen. Mgr.

**International Div.**
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**New York, NY 10105**
D. J. Henry, Gen. Mgr.

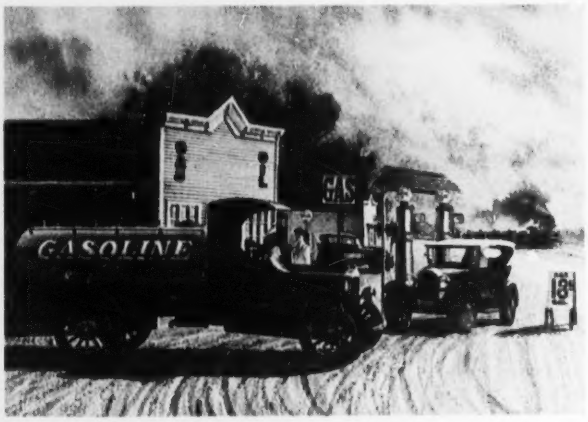
■**UNITED OIL INDUSTRIES**
**P.O. Box 1867**
**Athens, GA 30603**
**Phone: (404) 543-8292**
Key: M; Gr, Dr,
James H. Moore, Pres.

■**UNITED MARKETING CO.**
**125 Chatauqua Ave.**
**Lakewood, NY 14750**
**Phone: (716) 763-8566**
Key: M; Gr, Dr, Lr
Subs: Kwik Fill Mini Market
United Marketing
Richard W. Shaw, Div. Mgr., N.Y.
Richard Blythe, Div. Mgr., Pa.-Ohio

### KEY

| | |
|---|---|
| **I** | Integrated |
| **T** | Transporter |
| **R-M** | Refiner-marketer |
| **M** | Marketer |
| **G** | Gasoline, wholesale, retail |
| **F** | Fuel Oil, wholesale, retail |
| **D** | Diesel, wholesale, retail |
| **LPG** | Liquefied petroleum gas wholesale, retail |
| **L** | Lubricants, wholesale, retail |
| **w** | wholesale only |
| **r** | retail only |

# National Petroleum News
# 75th Anniversary
# Special Commemorative Limited Edition



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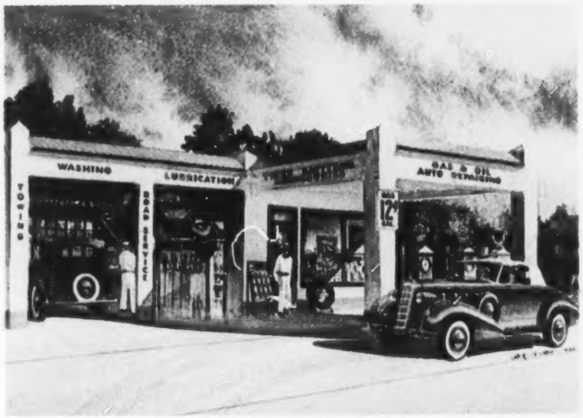
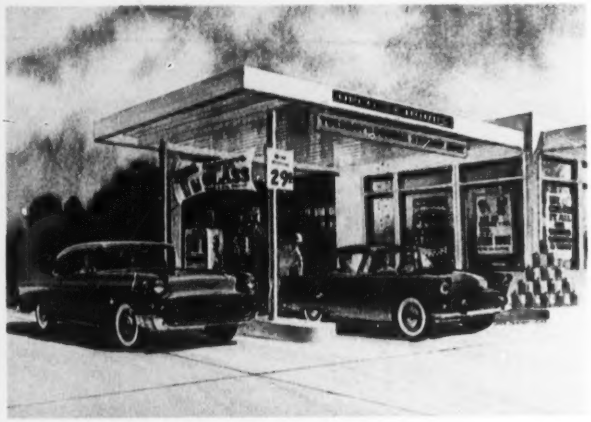
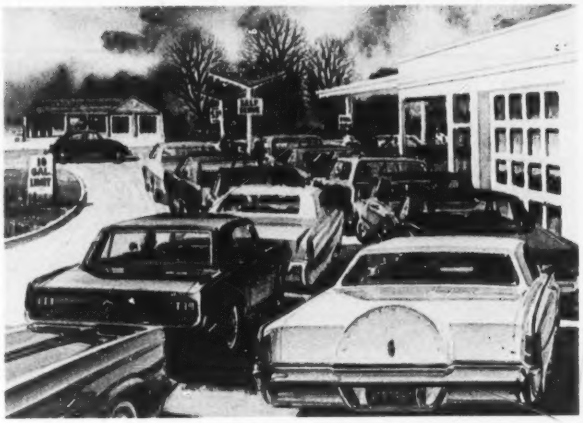


Mechanic on Duty



Double Stamps on Tuesday



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The paintings have been made available in a very small limited edition of only 250 signed and numbered collector prints and 20 signed artist proofs. These colorful fine art prints are of the finest quality, on 100% rag paper, and are a faithful reproduction of the original paintings. A certificate of authenticity guarantees that this is a one time special limited edition of 250 and will not be available ever again when it has sold out. Print image measures 15½ x 22. Prints may be ordered individually for $50 each, or at a special anniversary price for the set of 4 for $180, plus $4 each order for shipping.

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**Phone: (814) 723-1500**
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Sub. of Coral Petroleum, Inc.
Subs: United Refining Co. of Pennsylvania
D. B. Chalmers, Chmn. & CEO
Wm. S. Sudhaus, Pres. & COO
P. R. Hunter, Exec. VP
J. E. Sadler, Exec. VP Mktg.

**■UNITED STATES OIL CO.**
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**South Boston, VA 24592**
**Phone: (804) 572-4975**
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Edward "Ned" Evans, Pres.

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**Great Neck, NY 11022**
**Phone: (516) 482-9400**
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**1633 26th St.**
**Santa Monica, CA 90404**
**Phone: (213) 829-4383**
Key: I; G, D, F
Wasyl Kurinij
Edward T. Smolarski

**■V-1 OIL CO.**
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**Idaho Falls, ID 83403**
**Phone: (208) 522-1210**
Key: T-R-M; LPG
Sam H. Bennion, Pres. & CEO
Gary Huskinson, VP

**■VAN DYNE OIL CO.**
**116 Center St.**
**Troy, PA 16947**
**Phone: (717) 297-2151**
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Stephen J. Skinner, VP
Nicholas Delauro, Sls. Mgr.

**■VICKSBURG REFINING**
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**Vicksburg, MS 39180**
**Phone: (601) 636-8520**
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**■VULCAN ASPHALT REFINING CO.**
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**Cordova, AL 35550**
**Phone: (205) 483-9262**
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Sub. of United Ref. Co.
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Melvin R. Kacharos, VP-Finan.
Irvin W. Watkins, Jr., VP, Sls.
Gary Robbins, Supt.

**■WACO OIL CO.**
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**219 Garrard St.**
**Covington, KY 41011**
**Phone: (606) 581-9226**
Key: M; Gr, Fr
Don Conrad, Pres.
Giles Conrad, Exec. VP
Larry Rolfsen, VP
Bill Hollis, VP, Food Marts

**KEY**

| | |
|---|---|
| I | Integrated |
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| R-M | Refiner-marketer |
| M | Marketer |
| G | Gasoline, wholesale, retail |
| F | Fuel Oil, wholesale, retail |
| D | Diesel, wholesale, retail |
| LPG | Liquefied petroleum gas wholesale, retail |
| L | Lubricants, wholesale, retail |
| w | wholesale only |
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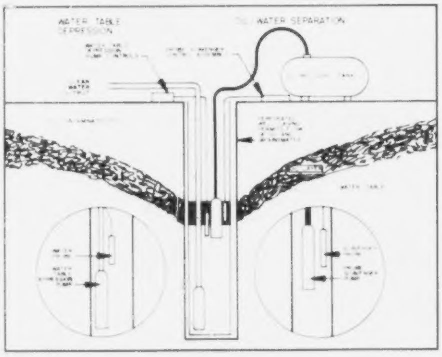

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**Jacksonville, IL 62651**
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Ralph McNaughton, Pres.
Jon Ware, Sr. VP, Sec.
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Charles Smith, VP Opns.

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Cheryl D. Campbell, Communications
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**New York, NY 10022**
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F. K. LaForge, VP Mktg., CT
C. F. Hutchinson, VP, Mktg. NY
B. A. Snider, VP, Mktg., NJ & PA
M. Kutsch, VP Regs. & Finan.
James Day, Sup. & Dist.
Dennis Scullin, Sup. & Dist.

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**Rt. 131**
**N. Grosvenordale, CT**
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R. Hernberge, Mgr. Fuel Oil Sls.

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**Drake Petroleum Co.**
**Drake Oil Ltd.**
**2 Southbridge St.**
**Auburn, MA**
F. LaForge, Pres.

**New Jersey-Pennsylvania Div.**
**Puritan Oil Co., Inc.**
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B. A. Snider, NJ Pres.
T. Player, PA Pres.

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**River Rd.**
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**Rhode Island Div.**
**Warren Oil Co.**
**Warren Petroleum Corp.**
**355 Allens Ave.**
**Providence, RI**
A. Letizia, Pres.
J. Ahern, VP

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**Lacey's Spring, AL 35754**
**Phone: (205) 881-3621**
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Sub: Wavaho Land Corp
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Walter V. Hough, Jr., Sec. Treas.

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**Webster, NY 14580-312**
**Phone: (716) 872-2121**
Key: M; G, F, D, L
Sub: Gateway Oil Co.
Webco Southern Oil Co.
Herbert Ingersol, Pres. & CEO
Gerald Pinkley, Exec. & Mktg. VP, Sls. & Credit Mgr.

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**2975 Bay Road 105**
**Saginaw, MI 48603**
**Phone: (517) 790-9344**
Key: M Rebel; G, D
R. J. Webb, Exec. VP
Wm. Webb, Jr., Pres.

■ **WEBER OIL CO.**
**1435 River Rd.**
**Camden, NJ 08105**
**Phone: (609) 964-1300**
Key: T-M; G-Exxon, D, F, L
Subs: Federal Oil Co.
Cape May County Oil Co.
Christian M. Weber, Sr., Pres. & CEO
Christian M. Weber, Jr., Exec. VP
Andrew H. Aman, Gen. Sls. Mgr.
Edmund Renner, Opns. Mgr.
Joan C. Weber, Credit Mgr.

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**2400 E. Bennett**
**P.O. Box 10465**
**Springfield, MO 65804**
**Phone: (417) 883-2666**
Key: M-Phillips; G, D, L
Subs: Tri Lakes Oil & Gas
Sac Osage Oil Co.
Jack Webster, Pres. & CEO
James H. Dowell, Exec. VP
Bob Boyar, Mktg. VP
Tim Webster, Advtg. Mgr.

■ **WESSON**
**165 Railroad Hill St.**
**P.O. Box 2127**
**Waterbury, CT 06722**
**Phone: (203) 756-7041**
Robt. W. Wesson, Pres. & CEO

■ **WEST PENN OIL CO.**
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**Warren, PA 16365**
**Phone: (814) 723-9000**
Key: L
Larry A. Lang, Exec. VP & CEO
Janet Lang, Pres.

■ **WESTERN MARKETING**
**P.O. Box 147**
**Abilene, TX 79604**
**Phone: (915) 677-2774**
Key: M; G, D, L
W. P. Wright Jr., Chmn. & CEO
J. D. Naler, Pres.
J. R. Thacker, Exec. VP
R. T. Dansby, VP Fin.
R. N. Hasten, VP Retail Mktg.

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Gary Lewis, Abilene, TX
Gary Wartick, Kansas City, KS

■ **WESTERN PETROLEUM CO.**
**Box 9429**
**Minneapolis, MN 55440**
**Phone: (612) 941-9090**
Key: T-M; G, D, F, LPG
Affiliate: Western Trading Co.
James W. Emison, Pres.
R. W. Carthaus, Sr. VP
Leland Granlund, VP Finance
R. S. Neville, VP Mktg.

■ **WHALE OIL CORP.**
**(Formerly Whale Co. Fuel Corp.)**
**One Coffey St.**
**Brooklyn, NY 11231**
**Phone: (212) 852-7000**
Key: T-M; Gr, Dr, Fr
Subs: Circle Combustion Corp
Peter J. Carini, Pres. & CEO
Anthony C. Silecchia, Gen. Mgr.
C. Edwards Ross, Treas.
Neil Bianco, Asst. Gen. Mgr.
Joseph A. Vassallo, VP Mktg.
Matthew J. Ryan, Supply & Distrib. Mgr.

■ **WHALE OIL CORP. OF NEW JERSEY**
**10-14th St.**
**N. Brunswick, NJ 08902**
Key: T-M; Gr, Dr, Fr
Subs: Mid-State Oil
Nassau Oil
Petro Roseland
White Meadow Petroleum
Peter J. Carini, Pres. & CEO
Anthony C. Silecchia, Gen. Mgr.
C. Edwards Ross, Treas.
Neil Bianco, Asst. Gen. Mgr.
Joseph A. Vassallo, VP Mktg.
Matthew J. Ryan, Supply Dist. Mgr.

■ **WHALE OIL CORP. OF NEW ENGLAND**
**324 Marginal Street**
**Chelsea, MA 02150**
**Phone: (617) 884-9350**
Key: T, M, Gr, Fr, Dr
Subs: Busfield Oil
Callahan Oil
Colonial Oil
Hicks Cromwell Oil
Litchfield-McDonald Oil
Mercury Oil
Colony Oil
Pickering Oil
C. Y. Woodbury
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Joseph A. Vassallo, VP Mktg.
Matthew J. Ryan, Supply Distrib. Mgr.

■ **WICKLAND OIL CO.**
**1765 Challenge Way**
**Sacramento, CA 95815**
**Phone: (916) 921-1100**
Key: M; G, D
J. Al Wickland, Jr., CEO
John A. Wickland, III, Pres.
Roy L. Wickland, Exec. VP
Mike Levine, VP Finance
Dan Hall, VP Legal
Craig La Clair, Asst. to Pres.
Bill Silvia, Dir. Human Resources

### KEY

| | |
|---|---|
| **I** | Integrated |
| **T** | Transporter |
| **R-M** | Refiner-marketer |
| **M** | Marketer |
| **G** | Gasoline, wholesale, retail |
| **F** | Fuel Oil, wholesale, retail |
| **D** | Diesel, wholesale, retail |
| **LPG** | Liquefied petroleum gas wholesale, retail |
| **L** | Lubricants, wholesale, retail |
| **w** | wholesale only |
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Walt Snelling, VP Ret. Mktg.
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Mike Walton, Mgr., Constr. Maint.
Bill Gilson, Mgr. Real Estate

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**2024 Howard St.**
**Spartanburg, SC 29304**
**Phone: (803) 583-5465**
Key: M-Amoco; G, F, D, Lr
Subs: Willard Tire Store
Meador Oil Co., Inc.
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William G. Willard, III, VP
Mary Hutchins, Credit Mgr.
Raymond Duncan, Service Stn., Supvr.
Isabel S. Willard, Asst. Sec.

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**Winston-Salem, NC 27109**
**Phone: (919) 767-6280**
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Arthur Tab Williams, III, VP
Stephen T. Williams, Asst. VP
H. Frank Steelman, Sec.-Treas.

■**J. H. WILLIAMS OIL CO.**
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**Tampa, FL 33601**
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Key: M; G-Union 76-D, F-Union 76, L
Sub: 76 Mini Marts, Inc.
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J. Hulon Williams, III, VP Treas.
E. L. Singletary, Sls. Mgr.
Dorothy F. Conerly, Sec.

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**Wallingford, PA 19086**
**Phone: (215) 566-7600**
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Sub: Jones Fuel & Heating Co.
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F. H. Kurr, Asst. VP, Treas.

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R. D. Saunders, PV Petroleum Gp.

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**Bradford, PA 16701**
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W. Hart, VP Mfg. & Res.

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**Phone: (814) 368-6111**
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**Olathe, KS 66061**
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**New Haven, CT 06510**
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C. T. Krug, VP
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K. F. Blanchard, VP & Treas.

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Matt Deluloo, Exec. VP
John Collins, Sr. VP
A. J. Fontana, VP Supply
Dave Hoobler, VP Sls.

■**YORK OIL CO.**
**33 E. Sunset Rd., Drawer L**
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**Phone: (804) 723-3371**
Key: M; G-Citgo, D, F, L
Sub: Easy Go C-Stores
Geo. M. LeCuyer, Pres. & CEO
E. Wayne Jackson, Jr., Exec. VP
W. M. Waters, Sls. Mgr. Consumer
Rick Cawthon, Opns. Mgr. Easy Go C-Stores
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James Mears, Fuel Oil Sls. Mgr.

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**P.O. Box 328**
**Piedmont, AL 36272**
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Key: M; G-Young, D
Sub: Grub Mart
Millard V. Young, Jr., Pres.

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**10618 West 63rd St.**
**Shawnee, KS 66203**
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Zarda Dairy Convenience Stores
Bernard A. Zarda, Pres.

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**P.O. Box 630**
**1222 Holton**
**Muskegon, MI 49443**
**Phone: (616) 744-1631**
Key: M; G-Zephyr, D, F-Zephyr, L
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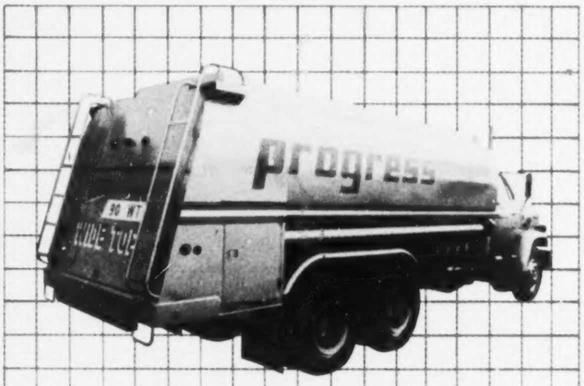

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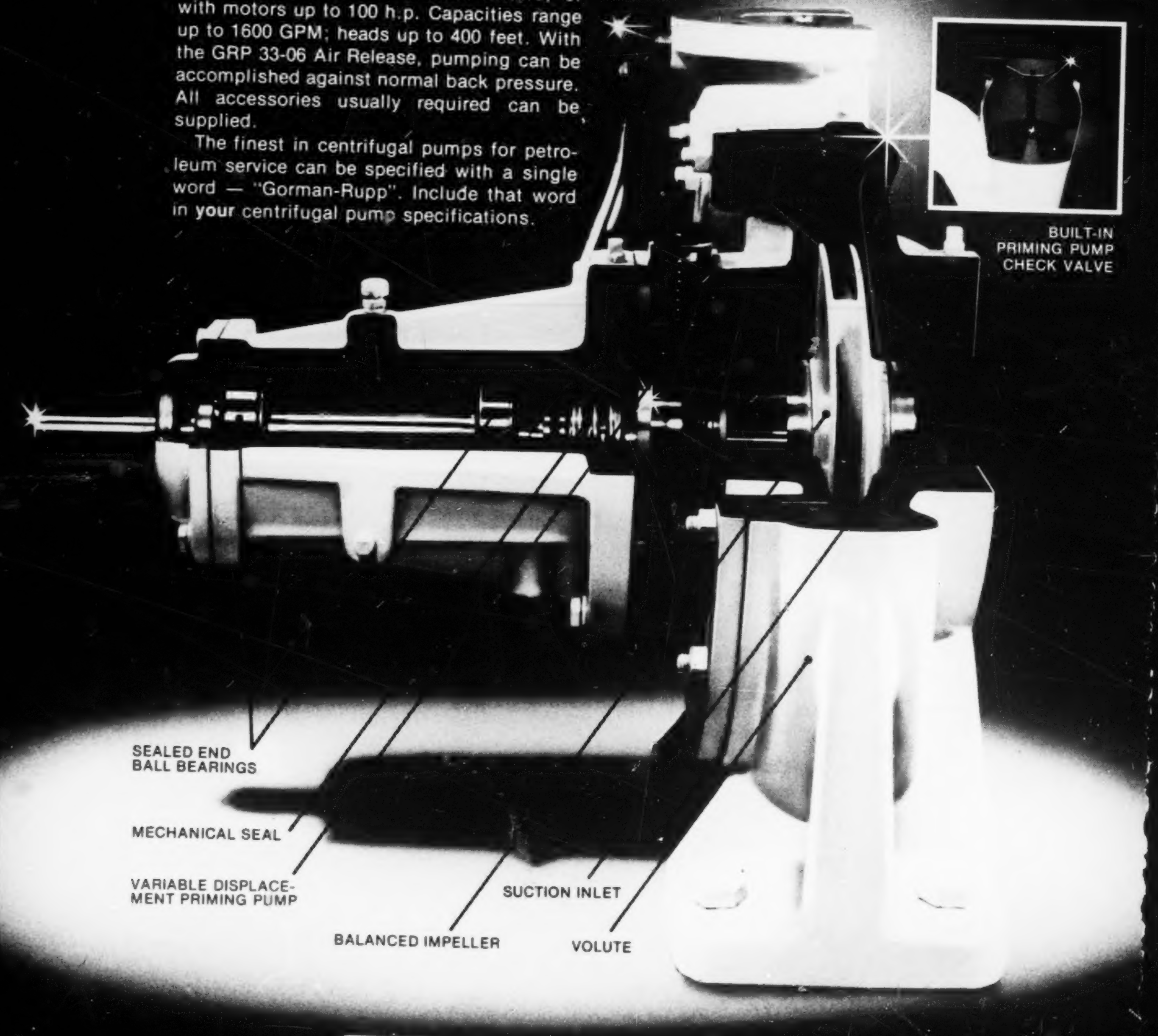

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GR-P-178

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All of the money must come from private donations; the federal government is not raising the funds. This is consistent with the Statue's origins. The French people paid for its creation themselves. And America's businesses spearheaded the public contributions that were needed for its construction and for the pedestal.

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You are invited to learn more about the advantages of corporate sponsorship during the nationwide promotions surrounding the restoration project. Write on your letterhead to: The Statue of Liberty-Ellis Island Foundation, Inc., 101 Park Ave, N.Y., N.Y.10178.

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TORCH
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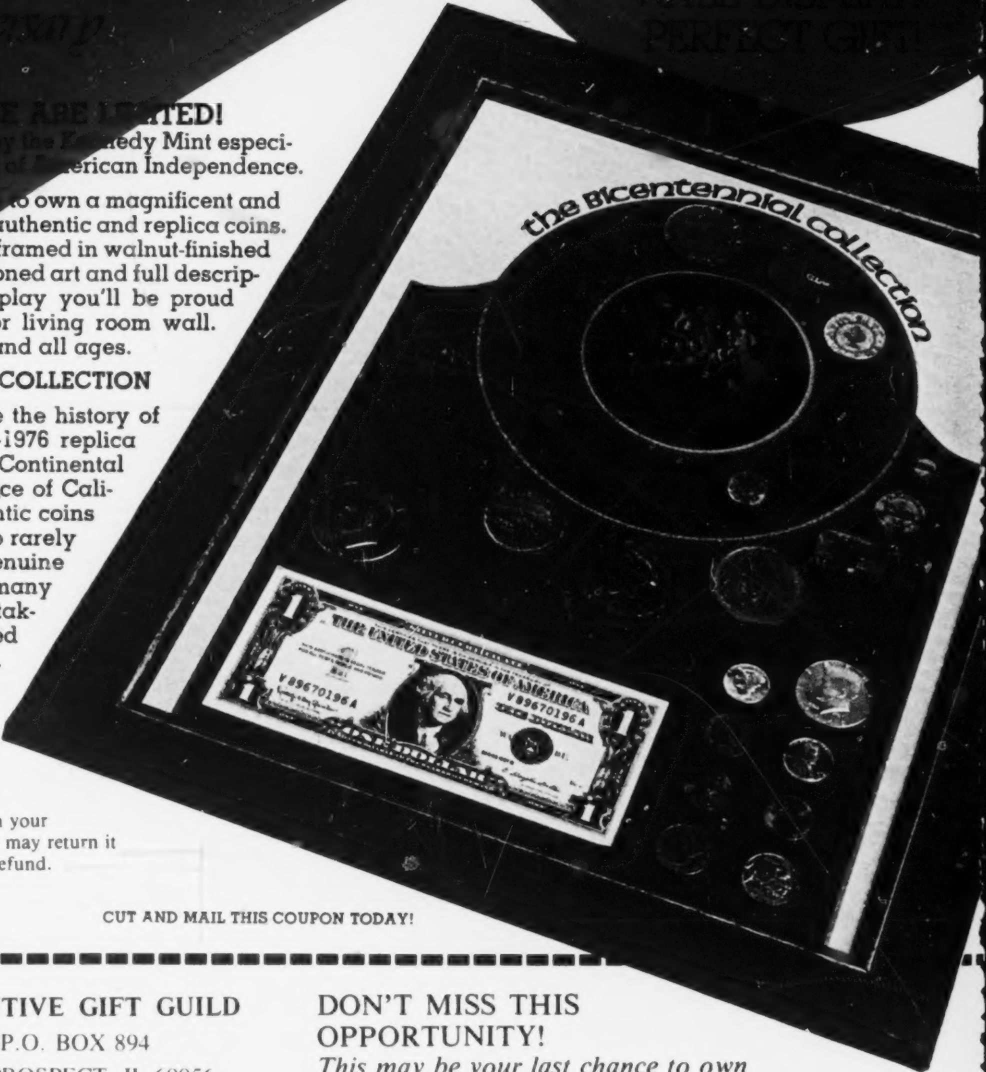

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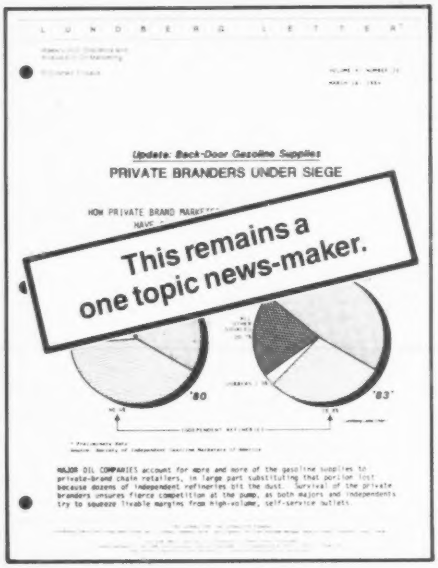

LUNDBERG LETTER

*Update: Back-Door Gasoline Supplies*

PRIVATE BRANDERS UNDER SIEGE

This remains a one topic news-maker.

'80 '83

MAJOR OIL COMPANIES account for more and more of the gasoline supplies to private-brand chain retailers, in large part substituting that portion lost because dozens of independent refineries bit the dust. Survival of the private branders insures fierce competition at the pump, as both majors and independents try to squeeze livable margins from high-volume, self-service outlets.

Goes to bed Fridays like all good little newsletters.

Goes to bed Tuesday nights!

Lundberg INWEEK Letter

Volume I Number 2 · April 10, 1984

GRADE WEIGHTS
SHARE OF U.S. SALES

Product Pipeline Planned

Hot, wide-angle, boiled-down news for fast reading.

to Keep Linden Status Quo

Stuckey's Puts 50 Stores Up for Sale

Charter Cutbacks

Coals of Fire

U.S. DEMAND

Distillates Slide

Simes in the Spring, Tra La

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# Who, What and Where in the Capital

**On this page you'll find a list of most of the agencies, Congressional committees and lawmakers in Washington responsible for energy policy important to marketers.**

## Department of Energy

Top-level administrators at DOE are at three different locations in Washington. Headquarters is at the James Forrestal Building, 1000 Independence Avenue, S.W. 20585, but many programs of interest to oil marketers are administered from other DOE locations at 2000 M Street N.W. 20461, and 1200 Pennsylvania Avenue N.W. 20461. Telephone numbers of key officials follow their listing below. The main DOE locator number is (202) 252-5000.

Secretary of Energy: Donald P. Hodel 252-6210
Deputy Secretary: Danny J. Boggs 252-5500
Special Assistant: Chuck Miller 252-5504
Office of Policy, Planning & Analysis: Juan Mares, Director 252-5235
Office of Environmental Protection, Safety and Emergency Preparedness: Dissolved
Economic Regulatory Administration: Ray Hanzlik, Administrator 633-9734
Deputy Administrator: Paul Michael 252-1530
Special Counsel: Economic Regulatory Administration: Milton C. Lorenz 252-8900
Office of Settlements Division: Allen Finkel, Director 252-5665
Office of Fuel Programs: James Workman, Director 252-9356

## Environmental Protection Agency

401 M Street S.W. 20460, (202) 382-4355

Administrator: William D. Ruckelshaus
Deputy Administrator: Alvin Alm 382-4700
Assistant Administrator, Enforcement and Compliance Monitoring: Courtney Price 382-4134
Assistant Administrator, Administration and Resource Management: Howard Messner 382-4600
Assistant Administrator, Water: Jack Ravan 382-5700
Assistant Administrator, Solid Waste & Emergency Response: Lee Thomas 382-4610
Inspector General: John Martin 382-4945

## Occupational Safety and Health Administration

Department of Labor Building, 200 Constitution Avenue N.W. 20210, (202) 523-9361

Assistant Secretary for Occupational Safety & Health: Vacant
Deputy Assistant Secretary for Occupational Safety & Health: Patrick Tyson
Directorate of Policy, Legislation & Inter-Agency Programs: Anthony Goldin 523-8021
Directorate of Safety Standards Programs: Barry White 523-8061

## Federal Trade Commission

Pennsylvania Avenue at Sixth Street N.W. 20580, (202) 523-3830. Economics Bureau is at 2120 L St. N.W. 20580, (202) 634-6881.

Chairman: James C. Miller
Commissioner: Michael Pertschuk 523-3530
Commissioner: Patricia Bailey 523-3525
Commissioner: Terry Calvani 523-3732
Commissioner: George W. Douglas
Director, Bureau of Competition: Timothy J. Muris 523-3601
Director, Bureau of Consumer Protection: Carol T. Crawford 523-3727
Director, Bureau of Economics: Wendy Lee Graham 634-6881
Associate Director, Advertising Practices: Wallace C. Snyder 724-1511
Associate Director, Marketing Practices: Christopher Brewster 523-1642

## Congress

Oil-industry representatives testify before many Congressional committees each year, but the bulk of legislation affecting oil marketers is handled by two committees. On the Senate side, the most important is the Energy and Natural Resources Committee, chaired by Sen. James McClure (R-Idaho).

In the House, most energy action important to oil marketers will continue to take place in the Energy Conservation and Power subcommittee of the Energy and Commerce Committee. Following the 1982 Congressional elections, the number of Democrats on the subcommittee was reduced from 14 to 9; the number of Republicans from 10 to 4.

## Senate Energy and Natural Resources Committee

5D-360 Dirksen Senate Office Building, 20510, (202) 224-4971
Michael D. Hathaway, staff director.

James A. McClure (R-Idaho), Chairman
Mark O. Hatfield (R-Ore.)
Lowell P. Weicker Jr. (R-Conn.)
Pete V. Domenici (R-N.M.)
Malcolm Wallop (R-Wyo.)
John W. Warner (R-Va.)
Frank H. Murkowski (R-Ark.)
Don Nickles (R-Okla.)
Chic Hecht (R-Nev.)
John H. Chafee (R-R.I.)
John Heinz (R-Pa.)
J. Bennett Johnston (D-La.)
Daniel Evans (D-Wash.)
Dale Bumpers (D-Ark.)
Wendell H. Ford (D-Ky.)
Howard M. Metzenbaum (D-Ohio)
Spark M. Matsunaga (D-Hawaii)
John Melcher (D-Mont.)
Paul E. Tsongas (D-Mass.)
Bill Bradley (D-N.J.)

## House Energy and Commerce Committee Subcommittee on Energy Conservation and Power

H2-316 House Office Building, Annex II, 20515, (202) 225-2424
Frank M. Potter Jr., staff director.

Richard Ottinger (D-N.Y.), Chairman
Al Swift (D-Wash.)
Mike Synar (D-Okla.)
Ron Wyden (D-Ore.)
Ralph M. Hall (D-Texas)
John Bryant (D-Texas)
Thomas A. Luken (D-Ohio)
Albert Gore Jr. (D-Tenn.)
John Dingell (D-Mich.)
Carlos Moorhead (R-Calif.)
Donald Ritter (R-Pa.)
Daniel R. Coats (R-Ind.)
James Broyhill (R-N.C.)

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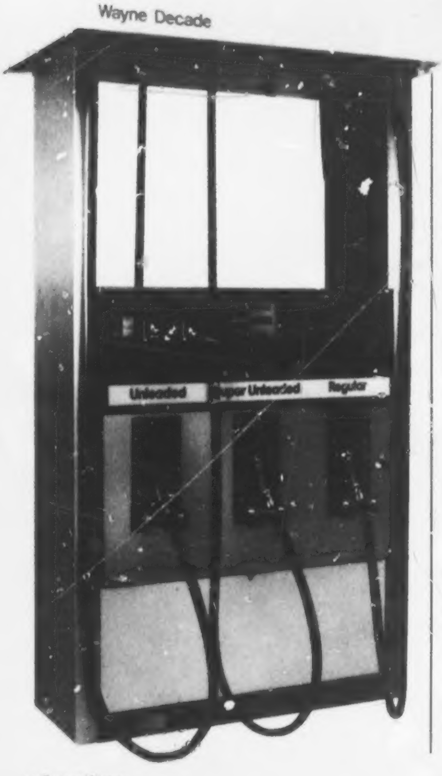

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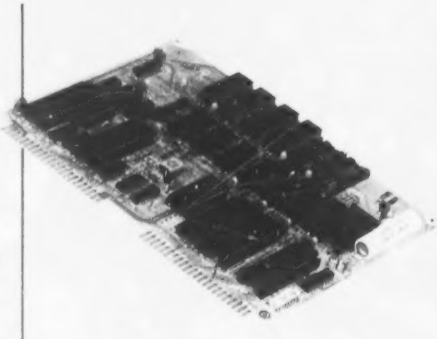

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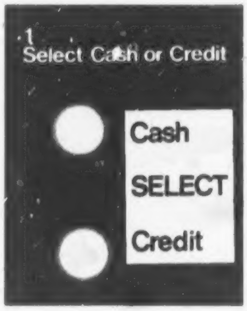

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## Why Majors Are Split Over Alcohol Fuels
## How a Small Jobber's Carwash Pays Off
## Ex-Gulf Exec's Perspectives on Futures

# NPN

National Petrol
A PUBLICATION FOR MARKETING MANAGEMEN
A/AFTERMARKET

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## Another Summer of Tough Competition

### Will the Casualties Mount?

# NATIONAL PETROLEUM NEWS

JULY 1984 VOL. 76 NO. 7

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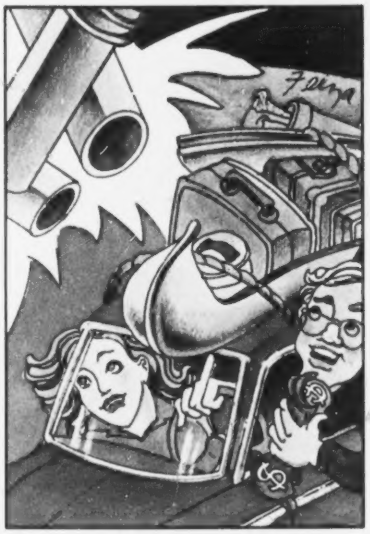

The next six months could be the most crucial period oil marketing has faced since industry decontrol in 1981, as continued slim margins and stiff competition in a still shrinking market leave scant relief for many this driving season. **Page 38**

**Cover art by Anne Feiza, Chicago**

WARNING
89
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Few gasoline marketing controversies leave the major oil companies as polarized as does alcohol fuels. A wrap-up of the corporate stances and marketing strategies employed in the market share fight . . . **Page 42**

CAR TRUCK
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Missourian K.C. Jones' profit stream is not a unique discovery, but it runs to the tune of $52,000/year in net profits. And, his full- and self-serve car wash doesn't hurt Jones' fuel sales either. **Page 49**

# • TRENDS

## Competition Driving Wedge Between Jobbers, Suppliers

**The strained relations between the supplier and jobber segments over marketplace activities are growing worse and could wind up with the jobbers beating on the doors of many state capitols for legislative "relief," some observers believe.**

A rift began developing between the two segments almost simultaneously with the lifting of federal price and supply controls just over three years ago. Despite many efforts to improve "communications" and "dialogue" since then, relations steadily have deteriorated.

The jobbers, basically, say the majors have been running roughshod over them at retail through their company-supplied outlets. They contend that they often can't compete with these company units at the wholesale prices the companies charge them.

In addition, claim the jobbers, many companies in recent months have been aggressively taking commercial accounts from them, sometimes bidding below their jobber rack prices.

The companies respond by saying that wholesale and retail markets are two different things. Most say they endeavor to keep their wholesale prices competitive with other wholesale prices, and their company retail units competitive with what others are posting at retail.

There had been a few faint hopes as the driving season got underway that retail prices might firm up, providing some improvement in retail conditions. [See page 38.] Many marketers also were watching developments in the Persian Gulf and wondering if the escalating Iraq-Iran war might lead to another supply shortage.

But as the summer drug on, pump postings remained at rock-bottom, and there had been little market reaction to the sinking of oil tankers in the Gulf by mid-June. Instead of the better margins that marketers awaited, there was more and more talk of jobbers being "in trouble."

Jack Griffith, president of the National Oil Jobbers Council outlined jobber concerns in letters he wrote in late April to most major oil company executives. These letters followed visits Griffith and Phillip Chisholm, NOJC's executive vice president, had made to the companies earlier.

During the company visits, Griffith said several suppliers expressed concern over some of their jobber customers not pulling their minimum contractual volumes and the unwillingness of many to take actions necessary to survive in the future.

Several suppliers, said Griffith, considered their jobber contracts "one way" documents—with jobbers switching to other suppliers when they found a better price.

One option the suppliers frequently mentioned to counter this, said Griffith, was that of channeling more product through their retail dealers and direct-operated stations. One supplier candidly told Griffith and Chisholm that if he had a choice to sell a gallon of product through his retail operation or at the rack, he would prefer to sell to the dealer (everything else being equal).

Griffith had said in his earlier report to jobbers about the supplier visits that an obvious response to supplier concern about jobbers not pulling their contractual volumes was to tell the suppliers to be price competitive, and there would be no problems.

"The greatest breakdown in communications between us and suppliers, however, is in the definition of 'being competitive'," Griffith told the jobbers. "They perceive that to us, 'being competitive' means offering a lower price."

In his later letters to supplier executives, Griffith told them that "marketers' concerns about their continued competitive viability remain high. They generally respect your position as a supplier in terms of your need to have a reliable outlet . . . but insist they can be reliable outlets only if the supplier prices in a competitive fashion."

Marketers, wrote Griffith, "are not assuaged by assurances that their supplier will keep them competitive with comparable wholesale prices. They must meet competition at retail—competition often provided by their own supplier."

Marketers do not like being told directly or indirectly "that they do not belong in certain markets or conversely that certain markets are going to be served directly by suppliers," he said, adding: "This is especially true when marketers have previously made capital investments in those markets often at their supplier's suggestion."

"Perhaps the most troubling thing I have seen from my visits with my fellow marketers is an 'escalating militancy,'" Griffith wrote, a mood focused on seeking legislative remedies. Sixteen state legislatures this year have voted on or currently are considering major company retail divorcement proposals, according to sources, with many backed by jobbers.

*—Marvin Reid*

# • MARKETPLACE AT A GLANCE

### AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

| APRIL | Gasoline (All types) | Leaded Regular | Unleaded Regular | Unleaded Premium |
|---|---|---|---|---|
| **U.S. City Avg.** | $1.211 | $1.145 | $1.227 | $1.375 |
| **Regions:** | | | | |
| **Northeast** | 1.216 | 1.149 | 1.216 | 1.370 |
| **North Central** | 1.230 | 1.178 | 1.294 | 1.485 |
| **South** | 1.185 | 1.112 | 1.197 | 1.344 |
| **West** | 1.220 | 1.140 | 1.244 | 1.411 |

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

### STOCKS (Add 000 bbl.)

| | 6/1/84 | 6/3/83 |
|---|---|---|
| **Gasoline (total)** | 252,042 | 225,670 |
| **Gasoline (unleaded)*** | 109,658 | 93,559 |
| **Jet Kerosine** | 34,437 | 36,460 |
| **Distillates** | 99,853 | 111,866 |
| **Residual** | 47,941 | 47,576 |

**Included in gasoline total.*

*Source: American Petroleum Institute.*

# Secondary Storage Is Surprisingly High, Quite Underused, But Flexible, Says NPC

**The National Petroleum Council's latest appraisal of oil's product storage capacities and working inventories is chockful of fascinating data for marketers and economic planners.**

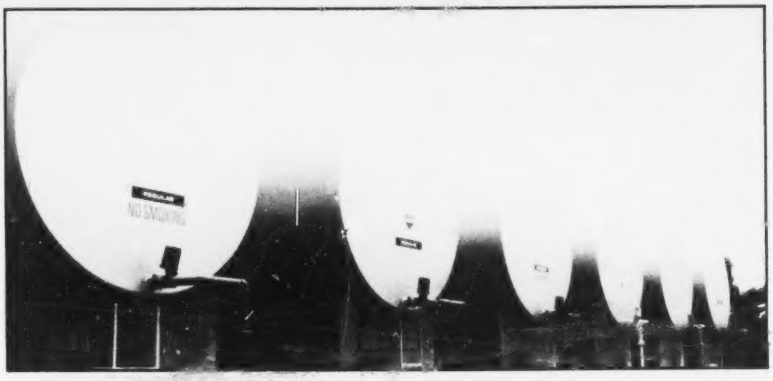
Here are some of the highlights:

- The secondary and tertiary segments have almost twice as much storage capacity as the industry experts had previously "guess-timated" several years ago.
- Excluding crude oil, the industry has a storage capacity approaching 75-billion gal. On a continuing basis, however, it generally uses less than half to as little as a third of it most of the time.
- Even though working inventories appear to be on the low side, there's no cause for concern. NPC says all can be considered "satisfactory" under normal conditions.

NPC cautioned its findings were based on data collected on March 31, 1983 and that some information, including inventories, could have changed since then and probably will change in the future as the system reacts to variations in supply, demand, price and other economic factors.

NPC, a quasi-official body, made the study at the request of the federal government, which asked it to update a report issued in 1979. An interim report dealing with primary storage capacity and inventories, also as of March 31, 1983, was issued last winter [NPN—Jan. '84, p29]. This article is based on a final draft of the 1984 report which was expected to be approved by NPC in late June.

The most striking part of the new report, however, was the evaluation of the secondary and tertiary segments of the industry.



NPC's survey is the first to give concrete figures for secondary and tertiary storage capacity.

This was the first time a study had been made in anything approaching a hard-nosed manner. The 1979 secondary-tertiary study, NPC conceded, was strictly estimates. This time, sample surveys were made of bulk plant operators and extrapolated to reflect the industry; and data on the retail segment were developed from published literature and discussions with industry representatives. Similarly, storage capacities and inventory for the tertiary segment were estimated by using published data, surveys, and interviews with industry people and analysts, NPC said.

For purposes of its study, NPC defined the secondary distribution system as bulk plants with storage capacities of less than 50,000 bbl. and no barge, ship or pipeline links to supplies; and retail motor fuel outlets such as service stations and truckstops.

It came to the conclusion that approximately 18,000 companies owned and/or operated bulk plants in the U.S. on March 31, 1983, as follows:

**Bulk Plants**
***(millions of gal.)***

| | Capacity | Inventory |
|---|---|---|
| Motor gasoline | 924 | 378 |
| Kerosine | 168 | 42 |
| Diesel/distillate | 1,554 | 336 |
| Residual | 252 | 84 |
| **Total** | **2,898** | **840** |

NPC estimated that as of March 31, 1983, there were 210,000 retail outlets with an average storage capacity of 16,800 gal. and an inventory of 5,600 gal. This is its bird's eye summary:

**Retail Outlets**
***(millions of gal.)***

| | Capacity | Inventory |
|---|---|---|
| Motor Gasoline | 3,318 | 1,092 |
| Diesel/distillate | 210 | 84 |
| **Total** | **3,528** | **1,176** |

The council then did a recap on the secondary system so that the bulk plants

## Estimated Storage Capacity and Inventory In the U.S. Petroleum Distribution System

***(as of March 31, 1983)***
***(gal. for product, bbl. for crude oil; add 000,000 in both cases)***

| | Primary | | | Secondary | | | Tertiary | | | Total U.S. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Capacity | Inventory | % Utilized | Capacity | Inventory | % Utilized | Capacity | Inventory | % Utilized | Capacity | Inventory | % Utilized |
| Gasoline | 19,152 | 9,366 | 48.9% | 4,242 | 1,470 | 34.7% | 4,326 | 1,764 | 40.8% | 27,720 | 12,642 | 45.6% |
| Kerosine | 882 | 378 | 42.9 | 168 | 42 | 25.0 | (a) | (a) | — | 1,050 | 420 | 40.0 |
| Kero-Jet fuel | 2,856 | 1,470 | 51.5 | — | — | — | 882 | 462 | 52.4 | 3,738 | 1,932 | 51.7 |
| Distillate | 12,390 | 4,956 | 40.0 | 1,764 | 420 | 23.8 | 11,844 | 5,502 | 46.5 | 25,998 | 10,878 | 41.8 |
| Residual | 6,006 | 1,932 | 32.2 | 252 | 84 | 33.3 | 9,954 | 3,612 | 36.3 | 16,212 | 5,628 | 34.7 |
| **Total (b)** | **41,286** | **18,102** | **43.8** | **6,426** | **2,016** | **31.4** | **27,006** | **11,340** | **41.9** | **74,718** | **31,440** | **42.0** |
| Crude oil (c) | 499 | 313 | 62.7 | — | — | — | — | — | — | 499 | 313 | 62.7 |

**(a) Included in distillate for tertiary storage segment: (b) Totals include surveyed products only. These inventory levels and utilization of storage represent satisfactory levels under normal operating conditions, according to the National Petroleum Council. Also, totals may not add up, due to independent rounding; (c) Excludes 31-million bbl. of Alaskan North Slope crude in transit.**

**Source: National Petroleum Council, Study of Petroleum Inventories and Storage Capacity, draft copy prepared in May for NPC meeting in late June 1984.**

End-user stocks are fine, but price jumps or oil shortages could 'disrupt the system.'

and the motor fuel outlets would be considered as a block. These are its totals:

**Secondary Distribution System**
***(millions of gal.)***

| | Capacity | Inventory |
|---|---|---|
| Motor gasoline | 4,242 | 1,470 |
| Kerosine | 168 | 42 |
| Diesel/distillate | 1,764 | 420 |
| Residual | 252 | 84 |
| **Total** | **6,426** | **2,016** |

The council defined the tertiary segment as the end users of the products. It divided them into seven broad sectors, as follows: agricultural, commercial, electric utilities, industrial, military/government, residential and transportation. The study group gave no estimate of the population of each of the groups but concentrated on the capacities and the inventories, both by categories and by products.

These are its summaries in both areas:

**Tertiary Storage Segment**
***(millions of gal.)***

| By Sector | Capacity | Inventory |
|---|---|---|
| Agricultural | 1,722 | 588 |
| Commercial | 1,554 | 336 |
| Elec. Utils. | 8,946 | 3,822 |
| Industrial | 2,562 | 714 |
| Military/Gov't. | 2,352 | 966 |
| Residential | 4,200 | 2,310 |
| Transportation | 5,628 | 2,562 |
| **Total** | **26,964** | **11,298** |
| **By Product** | | |
| Motor Gasoline | 4,326 | 1,764 |
| Kerosine, diesel and distillate | 11,844 | 5,502 |
| Kero-Jet fuel | 882 | 462 |
| Residual | 9,954 | 3,612 |
| **Total** | **27,006** | **11,340** |

NPC, in its commentary, stressed that inventories in the secondary and tertiary segments normally represent additional volumes that can be used to maintain continuous supply of products. However, it added, "circumstances such as expectations of either a near-term substantial price increase or a crude oil shortage can cause very rapid increases in call for product. These increases, in turn, could disrupt the system."

In the case of gasoline, it was explained: "A rapid surge in product call by the tertiary segment to fill the 61-million bbl. of unused capacity could, potentially, drain both the secondary system of its 15-million bbl. of gasoline and the primary system of its 23-million bbl. of gasoline above the minimum operating level.

"A surge in call by the secondary system, which has 66 million bbl. of unused gasoline storage capacity, could also drain the primary system of its supply cushion. Similar examples extracted from the survey data for distillate and residual fuel oils would appear even more extreme, but it should be noted that as of March 31, 1983, inventories of these heating fuels would be expected to be low, and unused tankage relatively high."

NPC emphasized that the likelihood of such surges would be mitigated by such factors as these:

—The demand surge would not be a consumption surge. It would be merely a transfer of products from one system to another.

—Holders of secondary and tertiary inventories would not necessarily experience a demand surge for all products in all geographic areas at the same time.

—Refineries continually replenish the primary system, and, in addition, spare refining capacity of at least 1-million to 2-million b/d could be used to handle demand surges.

—Space must be reserved for tank tops and safety allowances and operating flexibility, so filling to the top is virtually impossible in most instances.

## Petroleum Futures: Do They Affect Product Inventories?

**The National Petroleum Council, in its report on product storage capacities and inventories, also took a look at the petroleum futures market and its possible effect on supply shortages.**

"A concern exists," said the council, "that in the event of a supply shortage, some companies may rely on the futures market for delivery of 'wet barrels' (the physical commodity), only to find that the 'wet barrels' may not be available.

"Most participants in the market fulfill their contractual obligation to buy or sell through an opposite, offsetting transaction, rather than by delivering or taking delivery of 'wet barrels.' The results of the NPC survey of the primary distribution system and bulk plant operators suggest that, at this time, petroleum futures do not significantly affect the level of inventories." *—J. Richard Shaner*

## Mason Resigns Chair, as Charter Fights Losses

**The chairman and chief executive officer of embattled Charter Co., Raymond K. Mason, has stepped aside while creditors and the courts seek a solution to the corporate problems.**

Mason, whose father founded the firm as a lumber company in 1919, was succeeded as chairman and CEO by Alexander P. Zechella, 63, who has been with Charter for only a few years but has been serving as its chief operating officer.

Mason, 57, will continue as a board member but is expected to devote most of his attention to other interests. Charter is a multi-billion-dollar insurance and oil conglomerate (Charter Oil Co.) with many of its subsidiaries currently in Chapter 11 bankruptcy.

The Jacksonville, Fla.-based conglomerate reported a $36.2-million loss in the first quarter, compared to a net profit of slightly less than $1-million in the comparable period of last year.

Charter announced that it also is expected to post a "substantial provision for losses" in the second quarter which might result in "a significant reduction or elimination of stockholders' equity."

The sharp drop in the first quarter primarily reflected the operations of its insurance division—which had a loss of $3-million in the first quarter, compared with a profit of $21.2-million a year ago. Financial analysts in early June said the insurance division was close to being spun off by Charter.

## Shell Offers Rebates As Building Incentive

**Shell Oil is offering its jobbers east of the Rockies an incentive to build new stations or remodel existing facilities through the use of gallonage rebates.**

The program, which begins this month, provides jobbers with 2¢ gal. for every gallon over what the old station did. Jobbers who built or rebuilt last year qualify for 0.5¢ gal. rebates. Rebates apply only to gallons sold after July 1.

Dick Garnett, Shell's manager, retail department, says jobbers have indicated an interest in the program, although it is too early to judge actual participation.

Jobbers contacted seem to have mixed feelings on the incentives. "Any assistance you get is welcome," notes one midwestern marketer. "What you really need though is gallonage, not rebates, to compete."

"It seems to be a damn good program," says a western jobber. "I wish it would be available out West."

August 1984 $4.50

Fast Food: Fat Margins, But High Risks

How Some Squeeze Profits from Transports

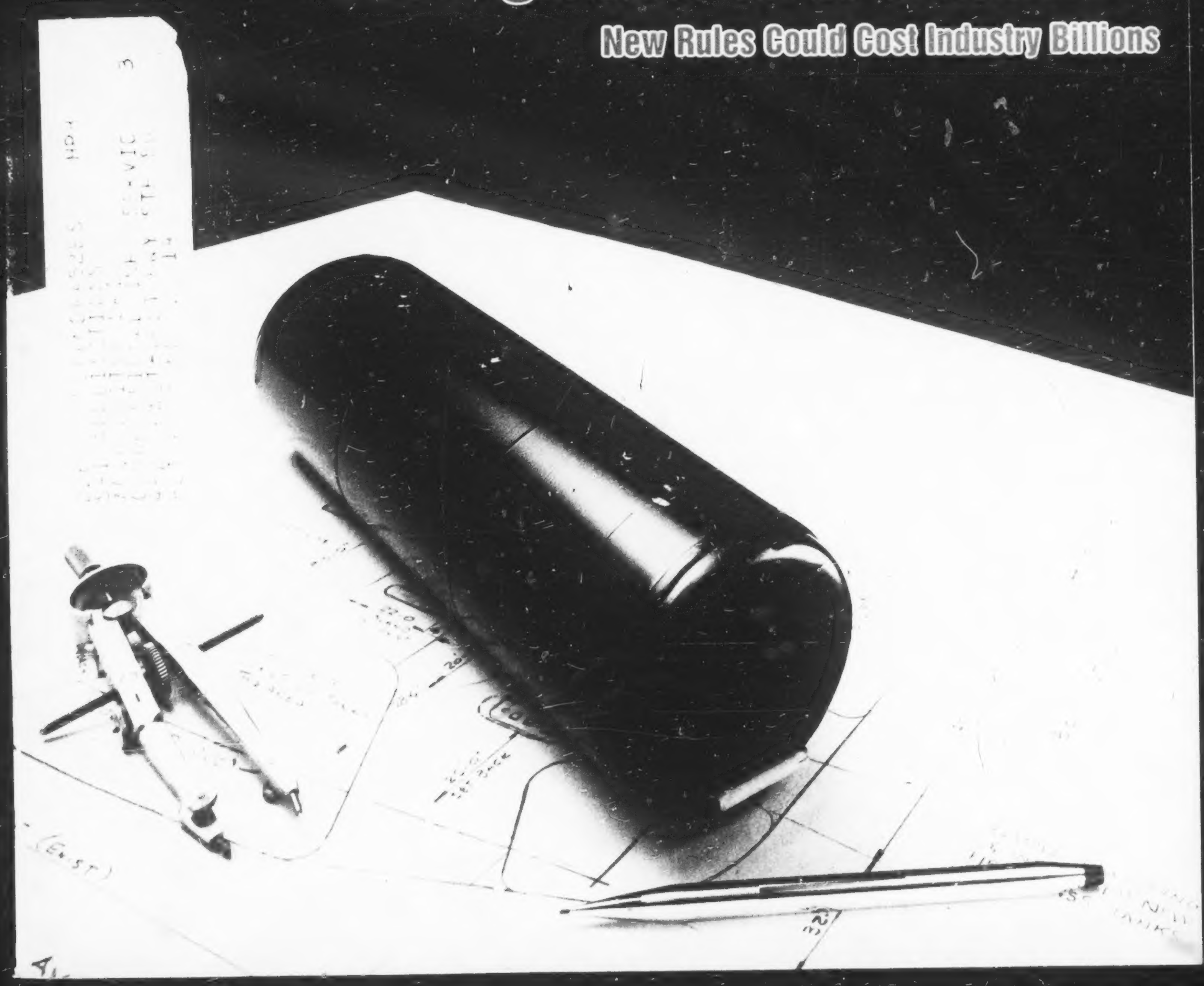
Update on Station Canopies and Lights

# NPN

National Petroleum News

## Underground Tank Dilemma

### New Rules Could Cost Industry Billions



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Underground storage tanks, which are as essential to the marketing of gasoline and fuel oil as the products themselves, are rapidly becoming one of the biggest challenges and headaches of the modern oil industry—one that is certain to be around for quite a while. **Page 36**

**Cover photograph by John Apolinski**

Well-lit gasoline station canopies—once considered a luxury but now looked upon as an industry standard—are getting even larger. And, some observers say the structures are as important a drawing card for motorists as price. **Page 44**

ABOUT SOME
d CHICKEN

Gasoline marketers are starting to sink their teeth into a new trade—fast food service. At projected gross margins of 50% and more, marketers feel they can make a faster buck frying chicken than they can pumping gasoline. **Page 52**

# • TRENDS

## Feds Say Lead Ban Coming 'Sooner Than You Think'

**Just a few years ago, the subject of leaded gasoline and its environmental effects could be pointed to as a classic case of government-industry cooperation on a problem nearly all agreed merited attention. There was a genuine consensus that lead should be removed from gasoline, but in gradual steps that would not be disastrous for refiners and marketers.**

That consensus has shifted so radically in recent months that within a year, the legal and administrative machinery probably will be in place to outlaw the use of lead additives in motor fuels, if not immediately, then over a very brief transition period.

The tacit agreement between industry and government that prevailed for half a decade simply has evaporated.

For evidence of that shift, look at what is going on now:

—The Environmental Protection Agency promised in June to issue a proposal that would change its rules on gasoline content either by barring lead additives completely or limiting them to minute amounts (probably 0.1 grams/gallon). The rule change was due in late July, and if it is on time, would be effective by late fall at the latest.

—When small refiners challenged EPA's gradual phase-down of gasoline lead content more than a year ago, the U.S. Court of Appeals in Washington, D.C., not only upheld the EPA rules, but explicitly told the agency it also would uphold a complete ban if it ever were proposed.

—Congress presently is considering legislative proposals on the subject. Like EPA, Congress is eyeing a complete ban or drastic reduction, but lawmakers also are considering bills that would eliminate the price advantage now enjoyed by leaded fuel by hiking the federal excise tax on leaded regular. At least one proposal would add a tax high enough to make leaded gasoline more expensive than any other type, while simultaneously reducing taxes on fuel with octane boosting, alcohol-enhanced gasoline. This approach has some attractive side effects, say legislators, because the higher tax on leaded fuel initially would bring in more money than would be lost by the lower tax on alcohol blends. But even if Congress doesn't pass one of these measures, it's clear that lawmakers will take EPA to task if it doesn't act.

—More than a dozen state legislatures also are considering lead bans, and they've been joined by the cities of Chicago, New York, Washington, D.C., and others.

Taken individually, these developments wouldn't necessarily mean much. After all, this is an election year and there is enough environmental awareness about in the U.S. that an astute politician might find a lead ban proposal a convenient way to make a few points with voters. But the fact that the issue suddenly has cropped up in many places at once is a clear signal there is a kind of "grass roots" sentiment building. There are other signs of that as well.

The Center for Disease Control, the federal public health agency and normally a politically neutral organization, has endorsed a complete lead ban. CDC has a great deal of clout with the general public by itself. (Remember what happened when it warned us about Swine Flu a few years ago?) But when the agency warned that lead in the atmosphere could cause brain damage in young children, it highlighted a concern that's guaranteed to bring the full weight of public opinion to bear against lead additives.

Consumer groups have testified repeatedly in favor of lead bans on Capitol Hill and before the EPA. These groups may not have the clout they enjoyed a decade ago, but they shouldn't be dismissed lightly, either.

The makers of lead additives, most notably Ethyl Corp., have complained that the studies used by EPA, Congress and others are whipping up "hysteria" that isn't justified by the facts. But the complaints probably are too late to change the course that's ahead. Given the temper of the courts, a legal challenge may delay a lead ban, but not for long.

Where lead additives are concerned, the future seems pretty clear. Sooner, rather than later, there won't be any. As they did when price and allocations controls were imposed, and again when controls were lifted, marketers will have to adjust when leaded gasoline disappears. As usual, those who have the biggest adjustment to make will be the independents who pick up much of their supplies from small refiners. The cost of refitting a refinery to produce no-lead gasoline will be prohibitive for those refiners who barely survived the last lead phase-down.

One side note: It's clear there is a market for fuel additives that control engine knock better than most regular unleaded fuels. Methanol-based additives have had their share of bad publicity lately, so its likely that at least for the short term, the beneficiary of the lead ban will be the ethanol industry. *—Thomas Goldsmith*

# • MARKETPLACE AT A GLANCE

### AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

| MAY | Gasoline (All types) | Leaded Regular | Unleaded Regular | Unleaded Premium |
|---|---|---|---|---|
| **U.S. City Avg.** | $1.221 | $1.154 | $1.236 | $1.380 |
| **Regions:** | | | | |
| **Northeast** | 1.214 | 1.146 | 1.215 | 1.366 |
| **North Central** | 1.237 | 1.184 | 1.261 | 1.430 |
| **South** | 1.189 | 1.118 | 1.200 | 1.345 |
| **West** | 1.251 | 1.169 | 1.275 | 1.441 |

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

### STOCKS (Add 000 bbl.)

| | 7/6/84 | 7/8/83 |
|---|---|---|
| **Gasoline (total)** | 248,862 | 224,715 |
| **Gasoline (unleaded)*** | 109,456 | 88,571 |
| **Jet Kerosine** | 35,085 | 34,651 |
| **Distillates** | 115,818 | 119,919 |
| **Residual** | 48,389 | 46,129 |

**Included in gasoline total.*

*Source: American Petroleum Institute.*

## '83 Refinery Unit Count, With 7 Up and 18 Down, Is Lowest in U.S. History

**With a net decrease of 11 refineries in 1983, the U.S. refining industry now has the lowest number of units in its recorded history, according to the federal government's Petroleum Supply Annual—1983, which was issued in mid-June.**

The government noted that it began collecting refinery data in 1918. The peak year for the refinery population was 1936 when 632 were actively processing crude oil. Last year there were only 247 as of Dec. 31—an almost amazing decline of 385 plants in less than a half-century.

The government report said the crude distillation capacity of U.S. refineries on Jan. 1, 1984 was 16.1-million b/d, down a scant 0.7-million b/d from the preceding year.

There were 18 closures and 7 reactivations in 1983 as refiners continued to eliminate uneconomic facilities and accelerate consolidations and streamlining.

Significantly, the net reduction in 1983 occurred among the 30,000 bbl. or less facilities. Refining companies lost eight plants in 1983 and have lost a total of 67 since 1980.

Refinery utilization, which had been on the low side in 1980 and 1981, rose in 1983 and achieved 78.1% in September. Refiners indicated they expect 1984 runs to average about 100,000 b/d higher than in 1983.

In New York, Frost & Sullivan, an international research organization, said the U.S. refining industry will have to make multi-billion-dollar investments in the years ahead to upgrade facilities to cope with expected changes in crude oil supply and product demand. It could amount to as much as $16-billion by 2000, the group said.

(The lion's share of the investments will go to upgrading bottom-of-the-barrel fractions coming from higher sulfur crudes. The second biggest segment will focus on regulatory requirements to keep octane ratings high, while phasing out lead in gasoline, Frost & Sullivan said.)

Even though the previously idled Amerada-Hess refinery at Port Reading was listed as a 1983 casualty, the company says construction work is continuing, and the facility is expected to be re-opened by the end of this year. It is to have a cat cracker capacity of 45,000 b/d and will operate on feedstocks from the company's Virgin Islands refinery.

### Refinery Closures—1983

| District/Refinery | Location | Crude Distillation Capacity b/d | Years in Operation |
|---|---|---|---|
| **PAD District I** | | | |
| Amerada Hess Corp. | Port Reading, N.J. | 68,000 | 25 |
| Quaker State Oil Refining Corp. | Emlenton, Pa. | 0 | 25+ |
| **Total** | | **68,000** | — |
| **PAD District II** | | | |
| Champlin Petroleum Co. | Enid, Okla. | 53,800 | 25+ |
| Hudson Refining Co. Inc. | Cushing, Okla. | 19,000 | 6 |
| Mobil Oil Corp. | Augusta, Kans. | 50,000 | 25+ |
| **Total** | | **122,800** | — |
| **PAD District III** | | | |
| Erickson Refining Corp. | Pt. Neches, Texas | 30,000 | 4 |
| GHR Energy Corp. | Good Hope, La. | 300,000 | 15 |
| Independent Refining Corp. | Winnie, Texas | 50,000 | 23 |
| Mallard Resources Inc. | Gueydan, La. | 7,400 | 4 |
| Marion Corp. | Theodore, Ala. | 25,000 | 15 |
| McTan Refining Corp. | St. James, La. | 19,300 | 6 |
| Petraco-Valley Oil Refining Co. | Brownsville, Texas | 12,300 | 5 |
| Pioneer Refining Ltd. | Nixon, Texas | 15,000 | 9 |
| Shore, Inc. | Kilgore, Texas | 550 | 3 |
| Thriftway Oil Co. | Graham, Texas | 1,184 | 25+ |
| **Total** | | **460,734** | — |
| **PAD District IV** | | | |
| Silver Eagle Oil Inc. | La Barge, Wyo. | 1,500 | 9 |
| **PAD District V** | | | |
| Arizona Fuels Corp. | Fredonia, Ariz. | 6,000 | 11 |
| Demenno-Kerdoon | Compton, Calif. | 10,000 | 6 |
| **TOTAL** | | **16,000** | — |
| **U.S. TOTAL** | | **669,034** | — |

### Refinery Reactivations—1983

| District/Refinery | Location | Crude Distillation Capacity (b/d) Operating | Crude Distillation Capacity (b/d) Idle |
|---|---|---|---|
| **PAD District I** | | | |
| None | | | |
| **PAD District II** | | | |
| Flying J | Williston, N.D. | 1,830 | 2,750 |
| Sinclair Oil Corp. (formerly Texaco Inc.) | West Tulsa, Okla. | 50,000 | 0 |
| **Total** | | **51,830** | **2,750** |
| **PAD District III** | | | |
| Caribou-Four Corners | Farmington, N.M. | 0 | 2,200 |
| Tropicana Energy Co. (formerly TARCO) | Euless, Tex. | 0 | 4,650 |
| **Total** | | **0** | **6,850** |
| **PAD District IV** | | | |
| None | | | |
| **PAD District V** | | | |
| Coastal Petroleum Co. | Paloma, Calif. | 10,000 | 0 |
| Gibson Oil & Refining Co. | Bakersfield, Calif. | 0 | 3,000 |
| West Coast Oil Co. | Oildale, Calif. | 0 | 19,000 |
| **TOTAL** | | **10,000** | **22,000** |
| **U.S. TOTAL** | | **61,830** | **31,600** |

# Kerosine Deliveries in 1983

| Destination | Residential | | Commercial | | Industrial | | Farm | | All Other | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1983 | 1982 | 1983 | 1982 | 1983 | 1982 | 1983 | 1982 | 1983 | 1982 | 1983 | 1982 |
| **PAD District I** | | | | | | | | | | | | |
| New England States | | | | | | | | | | | | |
| Connecticut | 239 | 263 | 1 | 1 | 2 | 2 | 0 | 0 | 105 | 115 | 347 | 381 |
| Maine | 247 | 272 | 20 | 22 | 4 | 4 | 3 | 4 | 13 | 14 | 287 | 316 |
| Massachusetts | 464 | 510 | 25 | 28 | 12 | 13 | 1 | 1 | 196 | 216 | 698 | 768 |
| New Hampshire | 213 | 234 | 7 | 8 | 0 | 0 | 1 | 1 | 5 | 5 | 226 | 248 |
| Rhode Island | 112 | 123 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 114 | 125 |
| Vermont | 140 | 154 | 24 | 26 | 0 | 0 | 4 | 5 | 2 | 2 | 170 | 187 |
| Central Atlantic States | | | | | | | | | | | | |
| Delaware | 295 | 324 | 11 | 12 | 1 | 1 | 2 | 2 | 1 | 1 | 310 | 340 |
| District of Columbia | 4 | 4 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 6 | 6 |
| Maryland | 604 | 664 | 80 | 88 | 17 | 19 | 8 | 9 | 23 | 25 | 732 | 805 |
| New Jersey | 321 | 353 | 87 | 96 | 127 | 140 | 0 | 0 | 743 | 817 | 1.278 | 1,406 |
| New York | 1,670 | 1,836 | 181 | 199 | 119 | 131 | 21 | 23 | 338 | 372 | 2.329 | 2.561 |
| Pennsylvania | 1,995 | 2,194 | 214 | 236 | 301 | 331 | 23 | 25 | 133 | 146 | 2.665 | 2.932 |
| Lower Atlantic States | | | | | | | | | | | | |
| Florida | 206 | 227 | 201 | 221 | 4 | 4 | 11 | 12 | 511 | 562 | 933 | 1,026 |
| Georgia | 56 | 62 | 130 | 143 | 2 | 2 | 11 | 12 | 85 | 94 | 284 | 313 |
| North Carolina | 1,841 | 2,025 | 30 | 33 | 33 | 36 | 159 | 175 | 57 | 63 | 2.120 | 2.332 |
| South Carolina | 478 | 526 | 23 | 25 | 10 | 11 | 13 | 14 | 26 | 29 | 550 | 605 |
| Virginia | 953 | 1,048 | 31 | 34 | 63 | 70 | 48 | 53 | 57 | 63 | 1.153 | 1.268 |
| West Virginia | 284 | 312 | 15 | 16 | 73 | 81 | 1 | 1 | 30 | 33 | 403 | 443 |
| **Total** | **10,122** | **11,131** | **1,083** | **1,191** | **769** | **846** | **306** | **337** | **2,325** | **2,557** | **14,605** | **16,060** |
| **PAD District II** | | | | | | | | | | | | |
| Illinois | 281 | 335 | 6 | 7 | 42 | 50 | 15 | 18 | 24 | 29 | 368 | 439 |
| Indiana | 288 | 343 | 15 | 18 | 100 | 119 | 51 | 61 | 42 | 50 | 496 | 591 |
| Iowa | 251 | 299 | 30 | 36 | 12 | 14 | 51 | 61 | 34 | 40 | 378 | 450 |
| Kansas | 15 | 18 | 6 | 7 | 21 | 25 | 6 | 7 | 142 | 169 | 190 | 226 |
| Kentucky | 442 | 527 | 70 | 83 | 100 | 119 | 40 | 47 | 305 | 364 | 957 | 1,140 |
| Michigan | 469 | 559 | 15 | 18 | 60 | 72 | 15 | 18 | 64 | 76 | 623 | 743 |
| Minnesota | 160 | 191 | 3 | 4 | 0 | 0 | 27 | 32 | 3 | 4 | 193 | 231 |
| Missouri | 103 | 123 | 490 | 584 | 9 | 11 | 33 | 40 | 18 | 22 | 653 | 780 |
| Nebraska | 24 | 29 | 12 | 14 | 12 | 14 | 27 | 32 | 3 | 4 | 78 | 93 |
| North Dakota | 18 | 22 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 26 |
| Ohio | 765 | 912 | 51 | 61 | 159 | 191 | 40 | 47 | 1,134 | 1.352 | 2,149 | 2,563 |
| Oklahoma | 12 | 14 | 203 | 242 | 42 | 50 | 15 | 18 | 115 | 137 | 387 | 461 |
| South Dakota | 18 | 22 | 9 | 11 | 0 | 0 | 3 | 4 | 0 | 0 | 30 | 37 |
| Tennessee | 454 | 541 | 112 | 133 | 12 | 14 | 0 | 0 | 345 | 411 | 923 | 1,099 |
| Wisconsin | 66 | 79 | 109 | 130 | 21 | 25 | 3 | 4 | 3 | 4 | 202 | 242 |
| **Total** | **3,366** | **4,014** | **1,134** | **1,352** | **590** | **704** | **326** | **389** | **2,232** | **2,662** | **7,648** | **9,124** |
| **PAD District III** | | | | | | | | | | | | |
| Alabama | 607 | 534 | 376 | 331 | 232 | 204 | 28 | 25 | 723 | 636 | 1,966 | 1,730 |
| Arkansas | 58 | 51 | 86 | 76 | 232 | 204 | 28 | 25 | 174 | 153 | 578 | 509 |
| Louisiana | 86 | 76 | 376 | 331 | 1,707 | 1,501 | 319 | 280 | 4.050 | 3,562 | 6,538 | 5,750 |
| Mississippi | 58 | 51 | 145 | 127 | 116 | 102 | 28 | 25 | 28 | 25 | 375 | 330 |
| New Mexico | 203 | 178 | 174 | 153 | 86 | 76 | 0 | 0 | 202 | 178 | 665 | 585 |
| Texas | 405 | 356 | 1,476 | 1,298 | 1,620 | 1.425 | 175 | 153 | 7.840 | 6.895 | 11.516 | 10,127 |
| **Total** | **1,417** | **1,246** | **2,633** | **2,316** | **3,993** | **3,512** | **578** | **508** | **13,017** | **11,449** | **21,638** | **19,031** |
| **PAD District IV** | | | | | | | | | | | | |
| Colorado | 113 | 170 | 16 | 23 | 5 | 8 | 31 | 46 | 10 | 15 | 175 | 262 |
| Idaho | 0 | 0 | 5 | 8 | 10 | 15 | 0 | 0 | 5 | 8 | 20 | 31 |
| Montana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Utah | 31 | 46 | 31 | 46 | 16 | 23 | 0 | 0 | 51 | 77 | 129 | 192 |
| Wyoming | 0 | 0 | 10 | 15 | 5 | 8 | 0 | 0 | 78 | 116 | 93 | 139 |
| **Total** | **144** | **216** | **62** | **92** | **36** | **54** | **31** | **46** | **144** | **216** | **417** | **627** |
| **PAD District V** | | | | | | | | | | | | |
| Alaska | 0 | 0 | 23 | 24 | 1,176 | 1,220 | 0 | 0 | 17 | 18 | 1,216 | 1,262 |
| Arizona | 0 | 0 | 12 | 12 | 0 | 0 | 0 | 0 | 6 | 6 | 18 | 18 |
| California | 17 | 18 | 312 | 324 | 64 | 66 | 58 | 60 | 64 | 66 | 515 | 534 |
| Hawaii | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Nevada | 12 | 12 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 18 |
| Oregon | 58 | 60 | 12 | 12 | 0 | 0 | 6 | 6 | 17 | 18 | 93 | 96 |
| Washington | 69 | 72 | 17 | 18 | 75 | 78 | 0 | 0 | 23 | 24 | 184 | 192 |
| **Total** | **156** | **162** | **382** | **396** | **1,315** | **1,364** | **64** | **66** | **127** | **132** | **2,044** | **2,121** |
| **U.S. Total** | **15,205** | **16,769** | **5,294** | **5,347** | **6,703** | **6,480** | **1,305** | **1,346** | **17,845** | **17,016** | **46,352** | **46,963** |

Source: Petroleum Supply Annual—1983, Energy Information Administration, issued in mid-June, 1984.

## Kerosine Demand Falls; ASTM Mulls Standards

**Except for six South and South-Central states, U.S. kerosine demand fell in 1983, according to a recent Energy Information Administration (EIA) report on kerosine deliveries.**

In the June report, EIA breaks down kerosine deliveries into five categories: residential, commercial, industrial, farm and "all other."

Last year, kerosine deliveries increased a big 14% in PAD III, encompassing Alabama, Arkansas, Louisiana, Mississippi, New Mexico and Texas. A total of 21.638-million bbl. of kerosine was delivered in those states.

But the Rocky Mountain area registered the biggest decline in deliveries, falling 33% to 417,000 bbl. Figures for other PADs show smaller declines occurring in all five categories.

Deliveries to PAD II, which includes the large midwestern industrial states of Illinois, Michigan and Ohio, fell 16% to 7.648-million bbl. Experiencing smaller declines were PADs I and V, which include the East and West Coasts. Deliveries in the East fell 9% to 14.605-million bbl., while West Coast deliveries fell 4% to 2.04-million bbl. last year.

On the national scale in spring 1983, some 42-million gal. of kerosine was in stock in bulk plants and an insignificant volume at retail, according to unique secondary storage data from the National Petroleum Council.

While observers tried to find the reasons behind lessened demand for kerosine, the American Society for Testing & Materials was preparing a voluntary kerosine container labeling standard. ASTM, fearful about possible safety hazards with the kerosine space heater boom, want kero and gasoline containers to be color-coded and labeled with danger signs.

An ASTM spokeswoman says the new standard would call for red for gasoline, blue for kero.

ASTM in late June also was considering a proposal to require that ethanol meet its new specification for "spark ignited ingition fuel" [NPN—Mar. '84 p.11].

Washington, D.C.-based Information Resources, Inc. says 30 states automatically adopt ASTM standards into law, including California and Illinois,—states where gasohol has captured a sizeable portion of the motor fuel market.

Information Resources says that opponents of the proposal say blenders would be affected the most since the mixture called for by the standard could only be blended at the refinery level.

Vote totals on ASTM's proposal were unavailable in late June.

## Summer-Fill Pleas Get Suppliers' Cold Shoulder

**Jobber organizations' and northeastern Congressmen's efforts to jawbone the major oil companies into reinstating summer-fill heating oil programs remains just that—talk.**

Only five out of the 17 suppliers answered the Petroleum Marketers Assn. of America's (formerly the National Oil Jobbers Council) May letters on behalf of summer-fill by late June. And, the responses PMAA did receive were negative.

"I think it's a very self-serving campaign by NOJC," says one marketing vice president of a major heating oil supplier to the Northeast. He says his company and practically every other supplier today rejects summer-fill programs because it costs roughly 1.5¢ gal./month to hold distillate.

"Summer-fill will raise the price of distillate, not lower it, because those costs have to be borne somewhere," he notes.

"They say they don't find there is a need for reinstitution of that program," says Mark Decker, a PMAA spokesman. "They believe that there are adequate supplies to meet normal winter demands and adequate incentive for marketers to build inventories in the free market. It tells us about the lack of commitment and generally the relationship between a supplier and his marketer today."

Another letter campaign which was launched by at least 70 northeastern Congressmen in mid-June to suppliers yielded no responses by the end of the month. A congressional spokesman said that the companies needed more time and that he remained "optimistic." "Letters from 70 members of Congress are nothing to put in the trash can," says Don Berno, House Small Business Committee advisor.

But by last month, congressional support of summer-fill was all talk and no teeth. The representatives have not discussed legislative alternatives to their letter-writing campaign, and Berno says Congress will not have time to draft proposals on the issue this session.

Even many marketers themselves held out little promise of a positive reply from supplier companies. Most majors' summer-fill programs either have been diluted or dropped in the past three or four years.

"Summer-fill is a costly procedure. I can certainly see the refiner's point of view," says Richard Chodosch, a 4-million-gal.-a-year New Jersey fuel oil jobber who has discontinued storing product himself. "It means refiners have to give you the product and defer billing, then carry the costs of that product at today's interest rates."

Chodosch had a half-million-gal. storage capacity. He estimated that at current fuel prices, it would have cost him about $20,000 in interest to store oil for three or four months at 14% interest.

"That's almost 4¢ a gal., and I couldn't afford that," he says. "I am not willing to gamble that the price of oil will have gone up."

Although PMAA applauded the congressional campaign, it prefers lawmakers' zeal stop with letters. "I don't think jobbers want the government back in their business," Decker explains.

He also fears state governments may adopt legislation encouraging other sources of energy. He says a Massachusetts government study this year, for example, concluded the state was too dependent on fuel oil for its heat.

"Just about every governor in the Northeast was concerned about price hikes and communicated that concern to the Federal Trade Commission and the Justice Department," Decker says.

Consumer complaints of dramatic and rapid price hikes during last season's cold snap put pressure on government officials and jobbers alike. Industry sources say retail prices in some markets rose by 20¢ gal. in January.

Jobbers say supply was tight, but there were no shortages. And, they say they suffered no business losses, just a lot of bad publicity. But jobbers say current low inventories may point to similar problems next season.

"This could give fuel oil a black eye" after the market finally stabilized from the turmoil of the late 1970s PMAA's Decker says. "There is a gasoline glut right now, so there's no incentive for refiners to crank out No. 2 because they'll get a lot of gasoline with it."

## St. Louis Marine Blames Arco for Methanol Mess

**Marine Petroleum, the marketer blamed for a 1982 St. Louis methanol blend fiasco, is now pointing a finger at Arco blaming it for the embroglio that drew more than 1,000 motorist complaints and a suit by the Missouri Attorney General.**

Marine is suing Arco for $21.5-million, charging that it was used as a "guinea pig" for Oxinol methanol blends. The company accuses Arco of fraud, breach of contract, and negligence in its complaint, which was filed in June in a Philadelphia federal court.

Marine paid Arco $9.9-million for shipments of two types of Oxinol products, but received blends with improper concentrations of methanol, according to the company's attorney. The company alleges that even the two products it meant

# Fuel Oil Briefs

## '83 Home Heating Oil Dipped 9-Million Bbl.

**Deliveries of distillate oil for home heating declined another 9-million bbl. in 1983, the Department of Energy says in a report issued in mid-June.**

The Petroleum Supply Annual—1983 notes that domestic consumption is now almost 100-million bbl. less than the 1979 total of 270-million bbl. Figures show 1978 was probably the peak year for residential consumption, but because the government changed its data collection base beginning with 1979, the totals are not comparable.

Total distillate consumption rose slightly in 1983 after four straight years of decline. This was attributable mostly to a 7% increase in diesel fuel for on-highway use.

On the other hand, total distillate consumption is down 232-million bbl. since 1979, when it ran 1.2-billion bbl. for the year. [See related story on kerosine demand on page 33.]

Residual consumption also declined in 1983, the government report says. It dropped 20.8% below 1982's total and is now 99.4% less than the 1979 level of 1.0-billion bbl.

### Distillate Deliveries in 1983 (Add 000 bbl.)

| Use | 1979 | 1980 | 1981 | 1982 | 1983 |
|---|---|---|---|---|---|
| Residential | 270,306 | 227,361 | 197,400 | 180,760 | 171,783 |
| Commercial | 99,723 | 92,136 | 78,663 | 75,699 | 72,809 |
| Industrial | 99,583 | 86,089 | 80,216 | 71,340 | 69,332 |
| Oil Company | 22,043 | 24,205 | 29,185 | 29,482 | 29,957 |
| Farm | 84,926 | 73,615 | 69,665 | 68,453 | 66,697 |
| Electric utility | 46,579 | 31,812 | 18,192 | 12,134 | 11,744 |
| Railroad | 103,493 | 102,022 | 100,482 | 93,150 | 91,681 |
| Vessel bunkering | 41,725 | 35,201 | 41,025 | 33,885 | 33,785 |
| On-highway diesel | 327,402 | 323,431 | 340,002 | 338,006 | 362,276 |
| Military | 18,570 | 19,138 | 17,763 | 15,201 | 15,924 |
| Off-highway | 65,212 | 51,705 | 38,851 | 37,118 | 36,737 |
| All other | 34,812 | 19,994 | 21,032 | 19,639 | 19,201 |
| **U.S. Total** | **1,214,374** | **1,086,709** | **1,032,476** | **974,864** | **981,927** |

### Residual Deliveries in 1983 (Add 000 bbl.)

| Use | 1979 | 1980 | 1981 | 1982 | 1983 |
|---|---|---|---|---|---|
| Commercial | 82,729 | 98,034 | 67,035 | 65,781 | 46,743 |
| Industrial | 198,759 | 163,564 | 117,024 | 122,619 | 89,573 |
| Oil company | 51,062 | 59,519 | 51,870 | 45,319 | 32,820 |
| Electric utility | 486,636 | 390,105 | 325,486 | 227,419 | 204,238 |
| Railroad | 245 | 665 | 178 | 170 | 140 |
| Vessel bunkering | 190,543 | 213,131 | 188,632 | 152,586 | 136,290 |
| Military | 7,736 | 8,066 | 7,008 | 7,829 | 5,411 |
| All other | 16,900 | 4,382 | 4,795 | 4,784 | 3,389 |
| **U.S. Total** | **1,034,610** | **937,466** | **726,030** | **626,510** | **518,604** |

## '84-'85 Distillate Outlook Same as '83-'84

**Government forecasters, in their mid-summer look at next winter's heating oil prices and supplies, say things are going to be about the same in 1984-85 as they were in 1983-84.**

They believe wholesale prices for No. 2 heating oil will average 83¢ gal. during all four quarters of 1984, will rise to 84¢ gal. in the first quarter of 1985, then ease back to the 83¢ level in the second quarter.

Retail prices, which averaged $1.13 gal. in the first quarter of 1984 before dropping 6¢ gal. to $1.07 in the second quarter, will bump along at that level in the third and fourth quarters, for a year-long average of $1.08 gal. There could be a 1¢ increase in the first quarter of 1985 then, paralleling the wholesale decline, a 1¢ slippage to $1.08 gal. in the second quarter.

Residual fuel oil will be better off, the government experts say. Resid, long in a slump, rose to 72¢ gal. in the first quarter of 1984, but softened in the second, third and fourth quarters to make the

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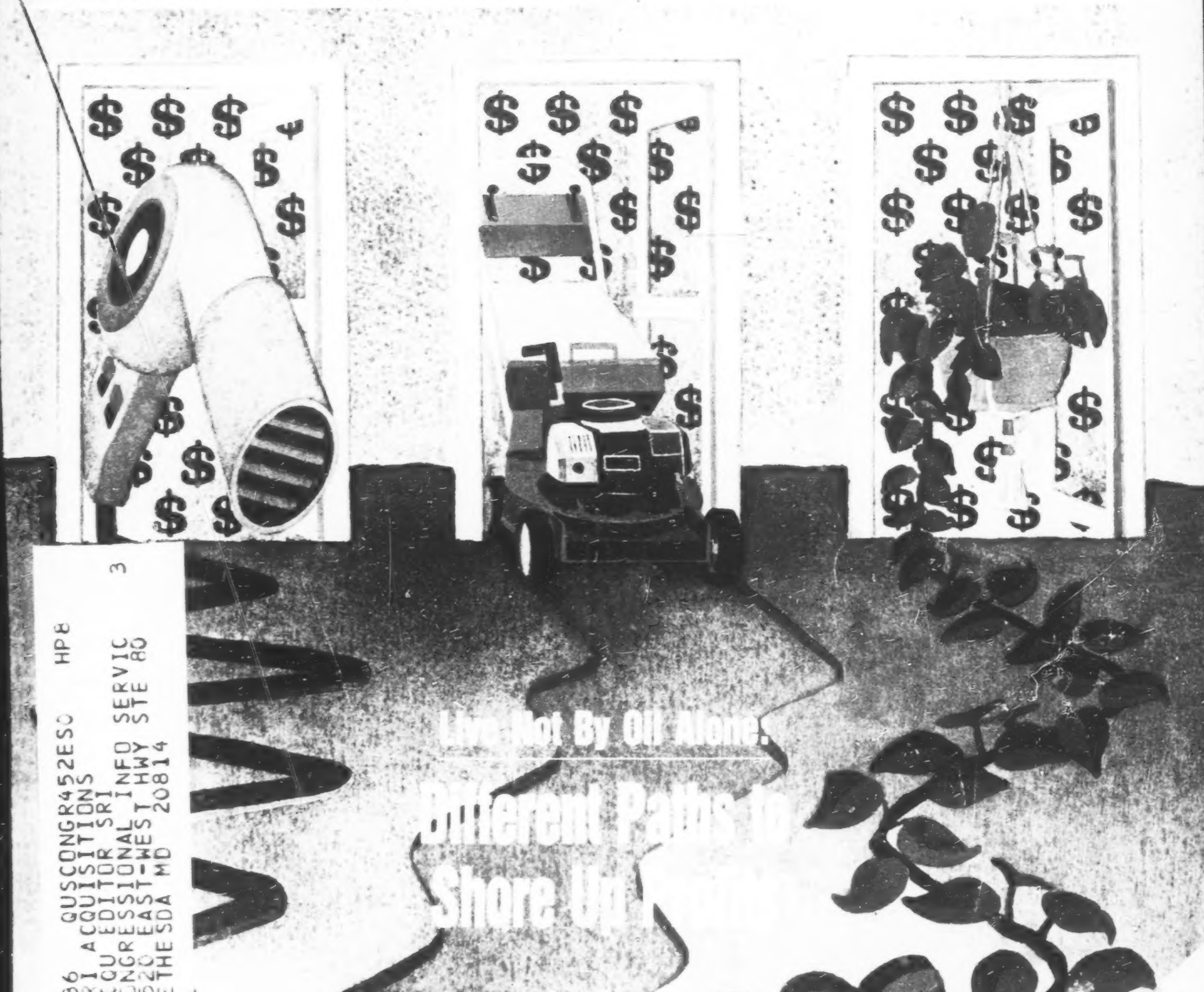

Live Not By Oil Alone:

# Different Paths to Shore Up [illegible]

PMAA Show Issue

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SEPTEMBER 1984
VOL. 76 NO. 9

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Dangerously low fuel margins and devastating competition are forcing oil marketers to either go belly-up, give up, sell out or . . . branch out. Selective diversification has sustained or improved the bottom line of many oil marketers, including those in this story. **Page 38**

**Cover illustration by John Tyszko**

Special Section: The inside story from Jack Griffith on why 'PMAA' ousted 'NOJC;' the group's officers; a culinary and tourist guide to the convention locale, New Orleans, La., and more . . . **Page 59**

YOUR OIL CO.?
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While many majors have shown what their credit cards cost them, some jobbers have proved their own cards make money for them on the local level . . . if managed properly. **Page 52**

# Letters & Comment

## Factbook Addendum:

*It has come to our attention that the 1984* NPN Factbook *entry under "Associations" for the American Petroleum Institute contained API's former address. The current address and a complete officers and marketing personnel listing follows:*

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# • TRENDS

## ROI from Plant Upgrades Socked by Product Margins

**It seemed like the smart thing to do at the time, but the industry's multi-billion-dollar binge in recent years to retrofit and upgrade its refineries appears to have backfired . . . at least for the time being.**

The sorry state of the gasoline and diesel fuel markets this past summer, say some analysts, is attributable in part to the increased yields of these products that some refiners can now achieve as a result of their recent modernization projects.

The greater yields, combined with stepped up refinery runs in May and June, more than offset a 1.9% increase in motor fuel demand during the first half of this year, most sources agree. In fact, says energy consultant Marion B. Stewart of New York, the combination had left U.S. markets "awash with gasoline" by mid-June.

Although Stewart found indications in late June that some refiners were moving to lower gasoline yield patterns, this movement was apparently too little and too late. By the end of July, marketers were reporting cargo lot gasoline and diesel prices in the low 70¢ gal. range.

The refiners didn't anticipate such a collapse in product prices when they began many of their upgrading projects at the beginning of the 1980s. Neither did many expect demand for transportation fuels to take the deep nosedive that it did, or for heavy crude oil prices to almost converge with the cost of top-grade light crudes.

Such developments have come to pass, though, proving once again how quickly conditions can change in the oil business.

Back in 1982, when the refiners were rushing to either launch or complete their upgrading projects, it appeared that those who could get them on-stream first would enjoy a huge advantage in raw material costs. Heavy crudes at the time were running $3 to $4 bbl. lower than top-grade sweet crudes, and the heavy oils were in plentiful supply.

Some refiner-marketers at the time pointed out that a refiner who could handle the dirtiest of heavy crudes could have as much as a 7¢ to 9¢ gal. advantage in raw material costs over those who could only process sweet, light crudes.

There was concern, as major after major launched upgrading projects, that those who couldn't afford to join the modernization race would soon find themselves in a totally uncompetitive situation.

This, too, has come to pass to some degree. Many independents have long since tossed in the towel, while others are barely hanging on, including some who have made heavy financial commitments to upgrade their plants.

But in addition to the independent refiners getting clobbered, most majors also aren't doing as well as their earlier plans had projected.

In addition to increased demand driving up the prices for heavy crudes, few of the large oil companies in the late 1970s could see such a deep dive coming in the demand for transportation fuels. But today, this demand is roughly 12% below what it was in 1978, and the dogfight for what remains has stripped away profits for both refiners and marketers.

It seemed when many of the upgrading projects were being planned, that they should be designed to both provide for the processing of heavy crudes and to maximize transportation fuel yields.

There is still nothing wrong with such thinking, say the experts. Over the long haul, heavy crudes should remain more plentiful than light crudes and be at least slightly less expensive. And, the motor fuel market, despite the doldrums that it has been in for the past four or five years, is still the industry's big market.

But for the present, some companies that have invested $1-billion or more in refinery upgrading projects admit that these projects haven't been contributing at the level anticipated when they were started. But as Richard R. Dickinson, a senior vice-president of Texaco Inc.'s U.S. operating unit told a newspaper recently, conditions change.

"We generate these units to last a minimum of 25 years," said Dickinson of a $1-billion upgrading of Texaco's Convent, La., plant. "And, it takes three or four years to build them. Often when you get through building them the world looks a little different than when you started. It will look different down the road, too."

*—Marvin Reid*

# • MARKETPLACE AT A GLANCE

### AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

| JUNE | Gasoline (All types) | Leaded Regular | Unleaded Regular | Unleaded Premium |
|---|---|---|---|---|
| **U.S. City Avg.** | $1.214 | $1.147 | $1.229 | $1.377 |
| **Regions:** | | | | |
| **Northeast** | 1.213 | 1.144 | 1.213 | 1.369 |
| **North Central** | 1.230 | 1.178 | 1.254 | 1.424 |
| **South** | 1.186 | 1.114 | 1.197 | 1.345 |
| **West** | 1.234 | 1.152 | 1.258 | 1.423 |

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

### STOCKS (Add 000 bbl.)

| | 7/27/84 | 7/29/83 |
|---|---|---|
| **Gasoline (total)** | 237,515 | 225,807 |
| **Gasoline (unleaded)*** | 107,554 | 89,950 |
| **Jet Kerosine** | 36,652 | 33,860 |
| **Distillates** | 125,308 | 128,464 |
| **Residual** | 51,851 | 48,581 |

**Included in gasoline total.*
*Source: American Petroleum Institute.*

By Donna Lawrence

## MIDWEST

# Getty Marketers Ready to Go Texaco, But Yearn for Long-Term Commitment

In the wake of the federal government's final approval of the Getty/Texaco merger, Getty's midwestern jobbers so far are optimistic about Texaco's decision to operate, rather than sell, Getty's 80,500 b/d El Dorado, Kan., refinery.

In a region rattled by an exodus of many major brand suppliers over the past few years, jobbers do not mind lowering the Getty flag if they can raise the Texaco star.

Even Getty truckstop operators pleased with Getty's strong truckstop program say they gladly would rebrand Texaco, noting the merger could create the largest, most effective truckstop program in the country.

"There were companies that came in and looked at this central region who I had never even heard of, much less anyone who had the resources to put behind the refinery," says one marketing source. "Texaco has the crude supply that others would not have."

"Everyone we have talked to is very pleased that this is going to take place," says Missouri truckstop and service station operator Ed Day, B & D Oil Co., who was active in lobbying against the merger before the federal government decided to let Texaco keep the refinery.

This optimism, however, is guarded. Marketers recognize that about five years ago, Texaco pulled out of most of the Midwest. And, although Texaco announced it would operate the refinery for three years, the company could sell the facility after that time. A Texaco spokesman also pointed out in late July that the three-year commitment only covers the refinery, not the 15-state marketing assets in the Midwest. Texaco could choose to sell properties it does not feel are profitable enough.

Still, most marketers say they have been conditioned in recent years by Mobil, Gulf and other major supplier pullouts to round up other sources of product.

"I am sure I could live with Texaco, but if they aren't here, I could buy product from Ashland, Total and Pester," says Bob James, a 6-million-gal.-a-year Iowa jobber.

Most marketers feel that, although Texaco will have to prove itself, the company's decision to keep the refinery is a strong sign of commitment. They point out that the sophisticated, modern facility could prove to be profitable for Texaco, unless economic conditions worsen over the next three years.

"Texaco did not have any refinery in the area in the Seventies that was comparable to El Dorado," says Alan Thiemann, general counsel for the National Assn. of Truckstop Operators (NATSO). "Our impression is that Texaco's commitment to operate the refinery speaks for the marketing community in those states (served by the refinery)."

Market sources say if Texaco operates Getty as a wholly owned subsidiary, it is likely to be sold later. And, although some marketers would prefer to cling to Getty's strong brand identity in the Midwest, most marketers feel rebranding is inevitable.

"Under the Federal Trade Commission's signed consent decree, Getty has to sell the Getty name in the Northeast with its marketing facilities," says another industry source. "I think anyone with good sense would not want to market under a brand that's owned by someone else in the Northeast. You could build an image, and they could tarnish it."

In opting for the Midwest marketing-refining package and electing to sell the interest in the Wyco products pipeline, Texaco takes on 237 Getty truckstops (both company- and jobber-operated). This gives Texaco about 550 truckstops, at least 100 more than Union, which is recognized as the nation's leading truckstop marketer. Both Getty and Texaco truckstop operators welcome the merger.

Truckstop operators value the Getty brand for its strong credit card and cash card programs. Although the Getty credit card carries a 3% processing fee for marketers, Getty picks up the cost of accepting VISA and MasterCard. The program also offered electronic fund transfer, purchase validation, driver tracking (from one point of purchase to the next) and microfilming of invoices for use in tax audits [NPN—July '83, p30]. Getty also built a strong truckstop image with a multi-media advertising campaign estimated at about a half-million dollars a year.

"We expect great things to develop," says B & D Oil's Day.

Getty
1.19
105
ECONOMY

A nagging question remains: Will Texaco really retain Getty's Midwest marketing assets?

## Ohio's '83 fuel demand halts five-year slide

Ohio's motor fuel demand grew last year by 1.9% or 98-million gal., the first increase in five years.

This is welcome news, considering that the market lost more than 400-million gal. of volume during those five years, according to an Ohio Petroleum Marketers Assn. (OPMA) report based on state tax records.

Jobbers accounted for about 21% of the market, while majors' direct-supply units seized a 51.5% market share. About 70% of all the motor fuel sold in Ohio is sold by the top 20 marketers, which includes 12 major oil companies and eight independents.

Two large independents experienced the highest percentage sales hikes—Ports, a 30.5% increase, and Campbell, a 29.4% increase. Marathon, Ohio's second largest motor fuel marketer, enjoyed a 12% gallonage boost last year, while the No. 1 marketer, Sohio, experienced a slight decline of 1.3%.

Ohio sources say competitive prices helped draw the volume. Following are last year's market share data.

**Ohio's Market Share Top 20**

| | |
|---|---|
| 1. SOHIO | 23.5% |
| 2. Marathon | 14.0 |
| 3. Shell | 5.4 |
| 4. Ashland | 4.5 |
| 5. Clark | 4.0 |
| 6. Sun | 3.8 |
| 7. Certified | 2.0 |
| 8. Gulf | 1.8 |
| 9. Ports | 1.8 |
| 10. Lyden | 1.5 |
| 11. Union | 1.5 |
| 12. Omega | 1.3 |
| 13. Mobil | 1.0 |
| 14. Englefield | 1.0 |
| 15. Campbell | 0.8 |
| 16. Hi-Lo | 0.7 |
| 17. Rich Terminal | 0.7 |
| 18. Kayo | 0.7 |
| 19. Holland | 0.7 |
| 20. King Kwik | 0.6 |

### Most Hudson outlets on the block or sold

About two-thirds of Hudson Oil's more than 300 retail gasoline outlets in its 35-state marketing area are on the block or have been sold, reports say. And, the aggressive indie refiner/marketer could decide to sell still more of its stations as part of a reorganization effort under Chapter 11 federal bankruptcy proceedings.

In early spring, Hudson announced it would pull out of five states, selling about 50 to 60 stations in California, Pennsylvania, New York, Indiana and Nevada [NPN—May '84, p15]. Hudson mothballed its 19,000-b/d refinery in 1982 and closed more than 80 stations in late 1983. The company filed for reorganization in January [NPN—Feb. '84, p22].

A federal judge reportedly has approved the sale of 316 closed retail outlets in June, with proceeds to be used to pay more than $9-million in loans made after the bankruptcy filing.

Shortly after the filing, Hudson's attorney said the sale of about 80 stations would give Hudson "a nice start" toward recovery. Neither Hudson nor its attorney, however, have been willing to comment on the case recently.

Early this year, Hudson's attorney said the company was about $27.8-million in debt and claimed about $32.8-million in assets. Its refining subsidiary reported about $19.7-million in debt with $38-million in assets.

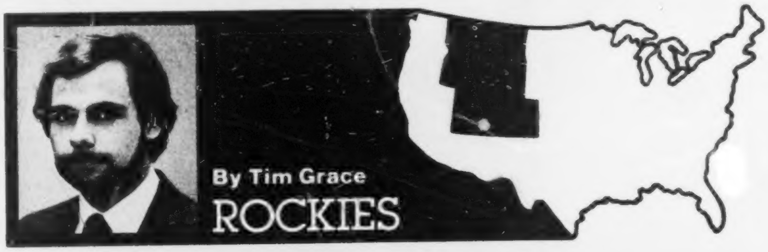
### Below-cost selling bill defeated in Wisconsin

A bill that would have given Wisconsin's below-cost selling enforcement program a boost was defeated in the closing hours of the 1984 state legislative session.

The proposal would have raised the state's petroleum inspection fee by 0.25¢/50 gal. and would have provided funds for three inspectors to investigate and enforce violations of the state's minimum markup law. [NPN—May, '84, p23].

"It was a textbook example of the legislative process at its worst," says Jan Thieme, a lobbyist for the Oil Jobbers of Wisconsin, explaining the bill was killed on procedural grounds.

OJW plans to find legislative sponsors to reintroduce the bill when the Legislature returns in January.



By Tim Grace

ROCKIES

## Colorado Marketers to Meet, Discuss Below-Cost Selling, Ethanol Exemption

Below-cost selling and "horrible" disparities in the price of leaded and unleaded gasolines seem to be the chief concerns of jobbers attending the annual convention of the Colorado Petroleum Marketers Assn. (CPMA) this month.

Tough competition has marketers searching for alternative profit streams such as ethanol blending and fast food. Both of those topics will be addressed at business seminars at the Broadmoor Hotel in Colorado Springs.

It is present conditions, however, that jobbers worry about the most.

"Below-cost selling kills the little guy and is unfair to the motorist who has to use unleaded gasoline," says one rural jobber who adds that majors' and large independents' loss-leader tactics mean up to 11¢ gal. differences in price between regular and unleaded. "We shouldn't have to have legislation, but we'll have to," he says.

Rocky Mountain observers say that the situation is worst in metropolitan areas such as Denver, Colorado Springs and Pueblo, where they say prices can differ by as much as 15¢ gal.

"This is not only a problem for motorists but it gives the industry a black eye and fosters misfueling," says Andrew K. Smith, CPMA president.

The Colorado association has attempted unsuccessfully to lobby for legislation against below-cost selling, says Smith [NPN—Nov. '83, p22].

Smith, who began his career as a regional manager for Mobil in the early 1960s, believes the association will wait until next year before trying to re-draft legislation.

**CPMA's Andy Smith wants to see more ethanol available and its tax break continue.**

Street prices in late July in some areas were as low as 98¢ gal. for leaded regular, although marketers outside Colorado's Front Range reported margins of as high as 7¢ to 8¢ gal.

"We're charging about $1.13 for regular," says Alamosa jobber Charles Houser, who operates two convenience store/gasoline outlets there. "I wouldn't call conditions excellent, but it certainly isn't a Denver here."

The largest concern among the "well-off" rural jobbers is jobber/supplier relationships: "We all ask the companies, 'Do you still love us?' "

One bright spot in the Colorado outlook, according to one marketer, is persistent growth opportunity. "One of the majors just bought 22,000 square feet at $24 a square foot," notes Truman Arnold, billion.

Mitchell says that when the alleged overcharges in other cases were passed down from refiner to customer, the jobber absorbed about 34% of the cost. With full reimbursement, given to some 10,000 jobbers, each jobber could receive as much as $34,000 apiece.

Despite reports that some Mobil marketers are dissatisfied with the $27-million settlement, says Mitchell, most view the money as a welcome bonus. "They felt that the money was water over the dam," he says.

Actually collecting the refunds may take awhile, however. Mitchell says that the bigger the company, the slower the process. He quotes one Washington bureaucrat as saying, "Auditing Exxon is like auditing France."

Kirschner is 'not the only one rebranding.'

## Indie Kirschner Converts Six Units to Arco Flag

**Kirschner Bros. Oil Co., an independent operating out of Philadelphia, Pa., has joined the brand-up movement and put six of his stations under the Arco flag.**

Michael Kirschner, president of the company, is also president of the Society of Independent Gasoline Marketers of America, which has been strongly critical of Arco and its marketing practices.

Kirschner said all six stations had volumes in excess of 100,000 gal. monthly "but were not our top performers by any means.

"We're just like anyone else and we're constantly reviewing our stations and the Arco proposition looked like something worthwhile trying."

Any more under consideration for rebranding? "Can't say," he said. "We're constantly looking at everything, that's all.

"We're not the only ones branding up," he added. "Look around and you'll see a lot of independents are doing it these days—enough of them that I don't even think there's any news value to it anymore."

## 2nd Qtr. Earnings Dampened By Poor Markets and Margins

**Sloppy markets and thin product margins continued to depress the earnings of the nation's leading oil companies in the second quarter of '84, despite the fact that earnings continued to improve.**

A late first-quarter surge in distillate demand in the eastern half of the country, analysts noted, pushed up refinery runs for heating oil and led to a downward pressure on gasoline prices.

Companies like Exxon, Standard of Indiana and Phillips which reported substantial increases attributed them mostly to volume and chemical operations.

Wall Street observers credited Atlantic Richfield with doing better than the cold numbers themselves indicated. It was noted, for instance, that Arco's oil and gas operating income rose more than $100-million, but the advantage was eroded by a large loss in the metals division and higher interest costs.

Texaco, whose earnings declined a modest 7.6%, nevertheless, blamed it on some of the high financing costs involved in the acquisition of Getty Oil for $10.1-billion—a huge deal which obtained federal government final approval in mid-July [NPN—Aug. '84, p16].

By way of contrast, Mesa Petroleum, the Texas firm which has precipitated several of the big merger battles, reported a second quarter net of $214-million versus $18.1-million in the same period of last year.

Even spending some $13.2-billion to acquire Gulf, Chevron Corp. reported $380-million in second-quarter earnings—a 3% gain over the 1983 period. By June 30, Chevron had acquired 96% of Gulf stock and is awaiting final approval from the Federal Trade Commission on the merger.

After $126-million in merger financing costs, Gulf contributed about $7-million to Chevron's earnings—reporting as an "unconsolidated subsidiary"—according to Chevron spokesman Jerry Martin.

Anticipating final federal approval on its deal within the next several months, Gulf could be fully integrated within Chevron and reporting "substantially higher earnings"—without its own dividend liabilities—by the end of 1985, he said.

### Second-Qtr. and First-Half Earnings

*(millions of dollars)*

| Company | 2nd Qtr. 1984 | 2nd Qtr. 1983 | % Chng. | 6 Mos. 1984 | 6 Mos. 1983 | % Chng. |
|---|---|---|---|---|---|---|
| **Exxon** | $1,350.0 | $1,075.0 | 25.6% | $2,825.0 | $2,135.0 | 32.3% |
| **Mobil** | 366.0 | 402.0 | (9.0) | 746.0 | 652.0 | 14.4 |
| **Texaco** | 302.0 | 327.0 | (7.6) | 623.0 | 646.0 | (3.6) |
| **Stand. (Ind.)** | 524.0 | 426.0 | 23.0 | 1,100.0 | 825.0 | 33.3 |
| **Chevron Corp.*** | 380.0 | 368.0 | 3.0 | 758.0 | 678.0 | 12.0 |
| **Atlan. Richfield** | 406.3 | 393.4 | 3.3 | 801.4 | 723.7 | 10.7 |
| **Shell** | 418.0 | 390.0 | 7.2 | 743.0 | 636.0 | 16.8 |
| **Gulf**** | NA | NA | NA | NA | NA | NA |
| **Tenneco** | 220.0 | 205.0 | 7.3 | 375.0 | 315.0 | 19.0 |
| **Stand. of (Ohio)** | 458.0 | 476.0 | (3.8) | 839.0 | 753.0 | 11.4 |
| **Phillips** | 231.0 | 169.0 | 36.7 | 424.0 | 298.0 | 42.3 |
| **Sun** | 137.0 | 135.0 | 1.5 | 280.0 | 225.0 | 24.4 |
| **Getty #** | NA | NA | NA | NA | NA | NA |
| **Unocal ##** | 185.7 | 139.4 | 33 | 365.8 | 267.7 | 37.0 |
| **Amerada Hess** | 45.5 | 68.2 | (33.4) | 133.8 | 73.2 | 82.8 |
| **Dia. Shamrock** | 64.3 | 29.5 | 118.0 | 123.8 | 34.1 | 263.0 |
| **Ashland +** | 36.2 | 37.1 | (2.4) | 68.4 | 51.8 | 32.0 |
| **Kerr-McGee** | 68.0 | 67.4 | 0.9 | 78.3 | 61.5 | 27.3 |
| **Pennzoil** | 51.6 | 29.3 | (76.1) | 120.8 | 70.6 | 71.1 |
| **Murphy** | 23.6 | 40.4 | (41.6) | 49.9 | 68.2 | (26.8) |
| **Amer. Petrofina** | 15.7 | 8.6 | 82.5 | 26.0 | 8.9 | 192.1 |
| **Southland Corp.** | 58.5 | 34.0 | 72.1 | 72.7 | 41.7 | 74.3 |
| **Total Petro.** | 6.0 | (16.5) | — | (3.7) | (53.6) | — |
| **Quaker State** | 6.3 | 12.1 | (47.9) | 12.6 | 18.2 | (30.8) |
| **Crown Central** | (5.4) | 3.9 | — | 9.5 | 6.0 | 58.3 |

*Formerly known as Standard Oil of California.

**Report contained within that for Chevron Corp., which is to acquire Gulf.

#Report contained within that for Texaco, which has acquired Getty.

##Formerly known as Union Oil of California.

+Third-quarter and 9-months reports, fiscal year ends 9/30.

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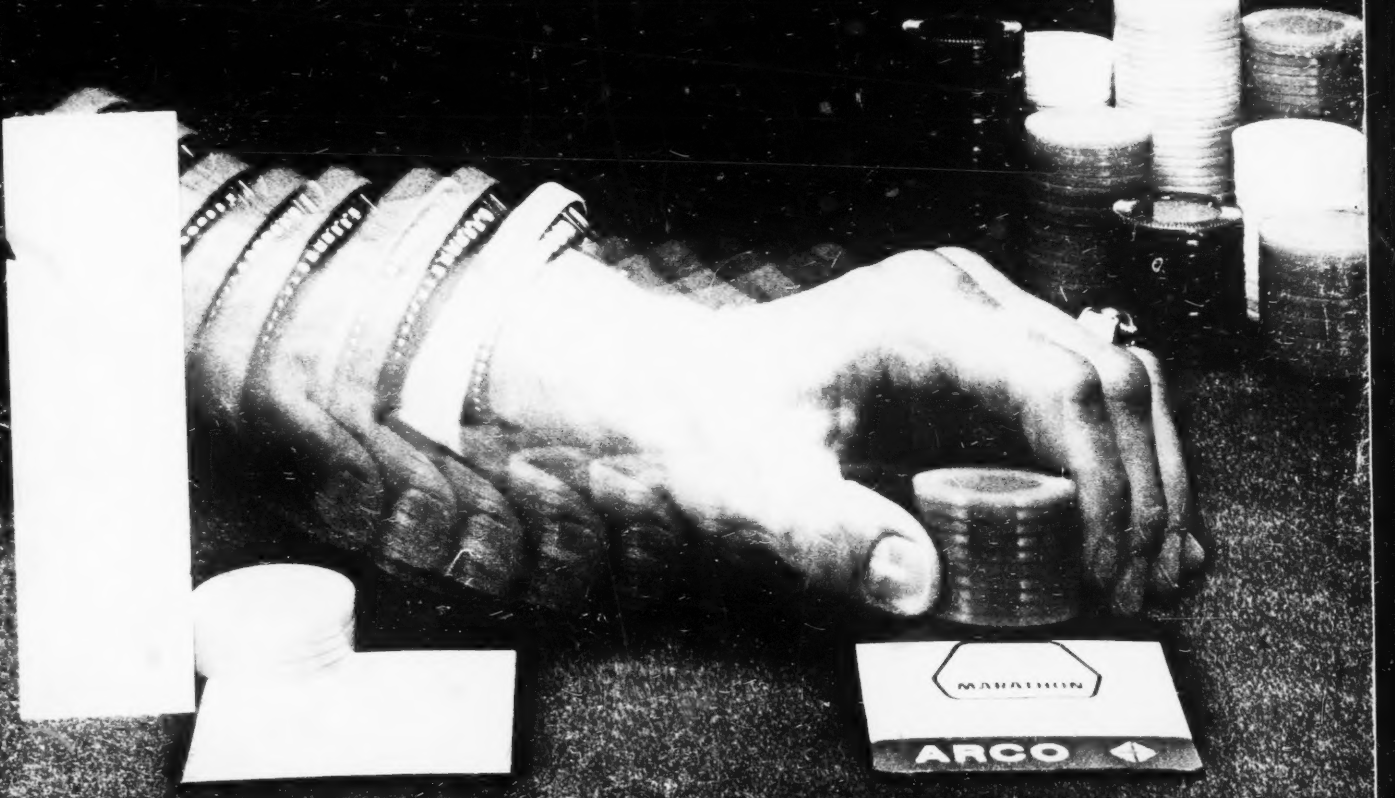
Why Amoco Is Building Small C-Stores

# NPN

National Petroleum News

Indies Split Their Bets

## Branding Up



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OCTOBER 1984
VOL. 76 NO. 10

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MARATHON
CONOCO
ARCO

Although they fight one another in the streets like cats and dogs, the major oil companies and private-brand independents are becoming flag-waving buddies as the fallout among smaller companies and restructuring of oil marketing continues. **Page 46**

**Cover photo by John Apolinski, Chicago**

Amoco
Food Shop

After at least six years of fine-tuning strategies to maximize profit-per-square-foot in a gasoline/grocery operation, Amoco has settled on a solution that is larger than a kiosk and smaller than a full-scale C-store. **Page 57**

An informal nationwide survey by *NPN* indicates oil marketers are virtually unanimous in their belief President Reagan will recapture the White House next month, but worry about big oil mergers and the federal deficit. **Page 33**

# Letters & Comment

## Highway Oil Omitted

Your annual *Factbook* issue failed to list our company in the distribution section (although you did correctly list us in the marketing management portion). And, we have had people calling in and wondering if we were still alive and kicking! Please set the record straight.

Tom G. Platis
president, Highway Oil
Topeka, Kan.

*We regret the omission. For the record, Highway Oil, Inc. is a gasoline, diesel and lubricant marketer supplying 225 outlets in 24 states.*

## Tank Story Praise

I'd like to commend your publication for the fine article written by J. Richard Shaner, "Underground Tank Dilemma," carried in your August issue (page 36).

The article provided a comprehensive assessment and discussion of the tank leakage problem and the many proposed solutions.

Jon Solberg
Federated Insurance
Owatonna, Minn.

## Awash in Debate . . .

I enjoyed reading your recent article on gasoline merchandising with car wash [NPN—June '84, p53].

I believe, however, that several statements by Gus Trantham, executive director of the International Carwash Assn./National Carwash Council which were included in your article were inaccurate. The car wash association and Mr. Trantham obviously have taken a position condemning car wash merchandising with gasoline.

The most prevalent form of car wash at gasoline outlets is the rollover type, and there are probably two times as many in operation as Mr. Trantham states. He also implies that rollover maintenance costs are similar to the high maintenance costs normally associated with tunnel units. Actually, it is because of the low maintenance costs, dependable operation, minimal vehicle damages and the full automatic capabilities that the oil companies have switched to the rollover equipment. Brush replacements average below $2,000, and it is very unusual to replace brushes in less than one year. Brush life on some rollover equipment is in excess of 100,000 washes. His statement that "you will have lots of repair and maintenance to do" is ambiguous and misleading.

The facts are evidenced by the tremendous success that gasoline locations are experiencing with car wash tie-ins. There is very little doubt that it is a concept that is here to stay.

Tom Carleton
national sales manager
Ryko Manufacturing Co.
Grimes, Iowa

*Mr. Trantham responds:*
*About 70% of the car washes in the U.S. are cross-merchandising gasoline. So, obviously, this association is not against gasoline being sold at a car wash.*

*We are against major oil companies owning and operating gasoline stations where car washes are offered for free. It represents unfair competition.*

*Further, a tunnel car wash operator or one who has an investment in the equipment, takes care of that equipment. Our experience is that the major oil company operator does not maintain the equipment like a professional car wash operator does. So, yes, his maintenance and downtime is higher.*

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# • TRENDS

## Industry Faces Tall Order From EPA to Get Lead Out

**Ambitious plans by the Environmental Protection Agency to phase the lead out of gasoline are receiving mixed but mostly negative reviews from the oil industry. Understandable, when the timing—demand and refining and marketing margins are slim to nil—couldn't be much worse, especially for independents who are the prime makers and marketers of leaded product.**

Oil marketers already are beginning to evaluate their competitive positions and their price/supply situations, for when the day arrives that leaded regular no longer is the fighting grade on the street. Already, some suppliers have dropped or have test-dropped leaded gasoline, with replacement by another grade of unleaded in one case. [See story on page 20.]

On the refining level, reactions of companies to the EPA's proposals to phase out lead varied significantly during hearings at the end of August. Since that time, complex issues such as the true cost of compliance, the overall impact of the phasedown on supply conditions and even the impact on the motoring public are being deliberated with uncommon immediacy.

The majority of the downstream sector seem to feel a phasedown from the allowable 1.1 grams/gal. limit to the proposed 0.1 grams/gal. is reasonable. The issue is the time frame. Gasoline producers either would be required to meet a 0.1 grams/gal. ceiling by January 1986 or graduate to a 0.5 grams/gal. limit by July 1985 and to the 0.1 grams/gal. limit by January 1988. Some refiners submitted to the EPA schedules meeting the target somewhere in between the two dates or even beyond. [See story on page 37.] The agency said it intended to render its regulation in January.

As for marketers, the imminent ban foreshadows the end of leaded regular as the benchmark street price. For now, many are concerned about what such a development will do to their strategy of pooling profit margins of leaded and unleaded grades in order to get a healthy bottom line. Recent developments have fed their apprehension.

Southland Corp. in late August dropped leaded at its Citgo Quik Marts in five mostly southern markets in a test also involving an 89-octane, third grade of unleaded. This, following Getty's move last spring when it stopped marketing a leaded grade throughout its 11-state Northeast region. In testimony before the EPA, Arco as much as stated that unleaded will become the price leader on the street.

More likely, what marketers will face is a period of resettling of their pool margin pricing and methodology. If unleaded regular becomes the fighting grade, marketers will be constructing a new set of slimmer pool margins from perhaps three unleaded grades, if available. Meantime, a worrisome aspect is the inching downward of unleaded regular wholesale prices toward current leaded prices. In Los Angeles, for example, early September unbranded rack prices for leaded regular left a 3.5¢ gal. differential between it and unleaded regular. This compares to a traditional wholesale rack differencial of at least 4¢. And, East Coast marketers are talking about a virtual convergence of the two grades' wholesale prices.

At the same time, the EPA is considering regulations that would mandate pricing unleaded regular under leaded regular and other rules calling for the sale of leaded at full-serve islands only. Both measures drew outcries from branded and independent marketers—especially the latter group, which tends more toward self-serve marketing. And, since indies traditionally have sold the lion's share of leaded to the price-conscious, lower-income motorists driving older, lead-hungry cars, independents say, they will suffer most from the lead phasedown.

Leaded gasoline sales are still a big portion of the market. Some 43% of U.S. motor fuel sales are a leaded product. In Reno, Nev., nearly half the gasoline sales are leaded, say West Coast sources, and in Phoenix, it's more than 76%. Unleaded sales are higher in the East.

For many of the independent—and even some of the major—refiners, production of unleaded-only (let alone one with octanes of 87 or more) is a formidable prospect. Once EPA's plan takes effect, no one will be trading lead rights, and there will be no so-called "small refiner bias" to extend the compliance periods or lead ceilings for those on the lower end of the refining scale. Some 25 refineries now lack the catalytic reforming capacity to up octane and meet EPA's proposal, and undoubtably will find the 3¢ to 5¢ gal. cost to go from 1.1 grams to 0.1 grams/gal. too steep. Southland Corp.'s Sam Susser described the impact of EPA's plan as having "a dramatic adverse effect on indie refiners because bankers won't lend the necessary money for upgrading to a low-margin product." The concern is shared by many. *—Thomas Olson*

# • MARKETPLACE AT A GLANCE

### AVERAGE GASOLINE PRICES IN THE U.S. (¢ per gal.)

| JULY | Gasoline (All types) | Leaded Regular | Unleaded Regular | Unleaded Premium |
|---|---|---|---|---|
| **U.S. City Avg.** | $1.197 | $1.129 | $1.212 | $1.370 |
| **Regions:** | | | | |
| **Northeast** | 1.209 | 1.140 | 1.207 | 1.368 |
| **North Central** | 1.213 | 1.161 | 1.235 | 1.412 |
| **South** | 1.183 | 1.110 | 1.196 | 1.346 |
| **West** | 1.186 | 1.104 | 1.206 | 1.388 |

*Source: U.S. Dept. of Labor, Bureau of Labor Statistics.*

### STOCKS (Add 000 bbl.)

| | 8/31/84 | 9/2/83 |
|---|---|---|
| **Gasoline (total)** | 226,141 | 223,730 |
| **Gasoline (unleaded)*** | 101,296 | 87,222 |
| **Jet Kerosine** | 38,909 | 32,762 |
| **Distillates** | 136,675 | 142,263 |
| **Residual** | 47,539 | 45,577 |

**Included in gasoline total.*
*Source: American Petroleum Institute.*

ports of potential leaks," says an Exxon spokesman.

Arco has required daily inventory reconciliation as part of its dealer lease for many years, but in 1981 introduced a cycle for testing all station tanks at least once in a three-year period. Leak detection and inventory control are part of dealer training.

Sun incorporated mandatory daily inventory reconciliation into its dealer supply contracts three years ago, with company audits of dealer records every six months.

And, Mobil offers distributors individually negotiated comprehensive insurance programs which will include leak protection through Frank B. Hall. The company added mandatory inventory reconciliation to dealer leases this year.

Shell and Chevron require daily inventory reconciliation in dealer leases, have leak investigation procedures and include leak detection as part of dealer training.

Texaco's lease requirements for daily inventory reconciliation and record-keeping began this year. Dealer records will be audited quarterly. For the past couple of years, Texaco also has offered its dealers and wholesalers seminars on leak detection.

Although the majors stress inventory control to prevent leaks, many of them also have begun costly tank replacement programs in recent years.

—Texaco started replacing all of its steel tanks with fiberglass tanks in 1982, including installation of line leak detectors. Leaking tanks are replaced, or lined with fiberglass, in the case of steel tanks.

—Sun last year began a three-year program to replace steel tanks with fiberglass tanks or provide cathodic protection.

—Mobil has converted 40% of its service station tanks to fiberglass tanks or fiberglass-lined tanks, and expects to complete its replacement program by 1988.

—Arco has an ongoing program to replace its steel tanks with fiberglass tanks. In 1981, the company tested its tanks in New York and Pennsylvania (where it markets Oxinol) for compatibility with methanol. Early this year, Arco conducted a study to find gasoline stations with water wells on the property or in the immediate vicinity. The resulting 50 stations are to have non-corrosive tanks or double-wall tanks. Arco estimates it spent $17-million on tank replacement between 1981 and 1983, and estimates it will spend another $25-million on replacement from 1984 through 1986.

—Exxon in 1980 began a comprehensive six-year program to upgrade or replace underground storage tanks. The company spent $102-million between 1979 and 1983 to replace or upgrade 18,600 of the 26,000 underground tanks it owns.

*—Donna Lawrence*

# Octane Findings Lower Despite 'Gutsy Gas' Intros

**Although it seems logical that the trend should be up, not down, the octane level of high quality unleaded gasoline dipped again last winter for the second consecutive year, according to the National Institute for Petroleum and Energy Research, Bartlesville, Okla.**

The latest study, issued in June and covering the winter of 1983-84, gave the average octane level of unleaded gasoline (above 90 octane) as 91.3. This was two-tenths of a point below the winter of 1982-83 and four-tenths of a point below the winter of 1981-82.

What makes this seem rather odd is the fact that a number of oil companies have introduced 93.5-octane grades in a number of marketplaces in the East. Most of the companies actually moved a 93.5 to 94.0 octane into their pumps so that at no time would test levels fall below 92.5 [NPN—May '84, p26].

Thus, it would seem logical that with all this higher octane gasoline moving into the marketplaces, the national average would reflect such an upward trend.

Industry experts had no ready answer for the apparent contradiction. Some speculated that perhaps the phase-down on leaded gasolines had had an effect on the pool gasolines.

It was also suggested that perhaps the companies with the higher octane gasolines were too few in number and too shallow in volume last winter to affect the national average.

"It's not a matter of concern, however," one industry executive said. "One-tenth of a point isn't really that significant. Four-tenths is more meaningful but spread over three years . . . well . . ."

The semi-annual survey has been made by the institute, formerly known as the Bartlesville Technology Center, under contract with the Department of Energy and the American Petroleum Institute for the past 10 years.

The current report represents data for 1,795 samples of products from 72 oil companies, large and small.

## Octanes: Winter 1983-84

| | (R+M÷2)* | | |
|---|---|---|---|
| | Unleaded Gasoline | | Leaded Gasoline |
| | Below 90 Octane | Above 90 Octane | Below 93 Octane |
| **Regions** | | | |
| **Northeast** | 87.4 | 91.2 | 89.3 |
| **Mid-Atlantic Coast** | 87.4 | 91.6 | 89.1 |
| **Southeast** | 87.4 | 91.6 | 89.1 |
| **Appalachian** | 87.0 | 91.2 | 89.0 |
| **Michigan** | 87.3 | 91.2 | 89.6 |
| **North Illinois** | 87.1 | 91.7 | 89.0 |
| **Central Mississippi** | 87.4 | 91.6 | 89.1 |
| **Lower Mississippi** | 87.4 | 91.5 | 89.0 |
| **North Plains** | 87.6 | 91.7 | 87.8 |
| **Central Plains** | 87.5 | 90.6 | 89.1 |
| **South Plains** | 87.4 | 91.4 | 89.0 |
| **South Texas** | 87.3 | 91.5 | 89.2 |
| **South Mountain States** | 86.7 | 91.1 | 88.1 |
| **North Mountain States** | 86.5 | 91.0 | 86.5 |
| **Pacific Northwest** | 87.5 | 91.3 | 88.7 |
| **North California** | 87.8 | 91.2 | 88.9 |
| **South California** | 88.0 | 91.4 | 89.4 |
| **U.S. AVERAGE** | 87.3 | 91.3 | 88.8 |
| **By Way of Comparison . . .** | | | |
| **Winter, 1983-84** | 87.3 | 91.3 | 88.8 |
| **Summer, 1983** | 87.5 | 91.4 | 89.0 |
| **Winter, 1982-83** | 87.3 | 91.5 | 89.1 |
| **Summer, 1982** | 87.3 | 91.7 | 89.0 |
| **Winter, 1981-82** | 87.4 | 91.7 | 88.9 |
| **Summer, 1981** | 87.4 | 91.3 | 89.0 |

*Research plus motor method divided by two, which is the government-mandated octane number for posting on pumps.

Source: Motor Gasolines, Winter 1983-84, National Institute for Petroleum and Energy Research, Bartlesville, Okla.

# TBA Briefs

## Battery Sales Up 17% In First 7 Months of '84

**Replacement battery sales were up 17% in the first seven months of 1984 versus the same period of last year, Battery Council International says.**

Shipment totals were 30,051,344 for the first seven months of 1984 and 25,683,382 for the comparable period of 1983. July shipments were 3,999,314, down a mite from the preceding month, but up 2% over July 1983. **N:N**

## '83 Industrial Lube Sales The Best in Five Years

**Pepped up by a surge in retail demand, sales of automotive and industrial oils and greases exceeded 2.1-billion gal. in 1983—the first upturn in this area of oil marketing since 1979.**

The National Petroleum Refiners Assn., in its 1983 survey said oil and grease sales totaled more than 2.5-billion for 1979 (nearly 2.44-billion oil, and 68-million gal. grease) and also provided the later figures for contrast:

| (Millions of Gal.) | 1983 | 1982 | 1981 | 1980 |
|---|---|---|---|---|
| **Total Oils** | 2,115 | 1,998 | 2,182 | 2,244 |
| **Total Grease** | 55 | 51 | 62 | 62 |
| **Grand Total** | 2,170 | 2,049 | 2,244 | 2,286 |

Automotive oil sales, which include engine oils, transmission and hydraulic fluids, and automotive gear oils, totaled some 1.28-billion gal. in 1983, also the best year since 1979. Industrial oils, while higher than 1982, did not fare quite as well as the automotive oils, however. The 1983 total was 836.7-million gal.

Retail sales of automotive oils hit 704.5-million gal. in 1983—about 60-million gal. better than they have been doing in recent years. Retail sales include all sales at service stations, auto parts stores, car dealers, truck stops, drug stores and mass merchandisers.

Commercial sales were up too, although not nearly as much—469.6-million gal.—for an increase of about 32-million gal. Commercial sales cover fleets, farm, government and industrial plants.

Sales of monograded oils slumped to 401.2-million gal., the fourth consecutive year of decline. SAE 30 continued to be the most popular grade, but sales of this grade dropped to 274.9-million gal. in 1983—versus 296.8-million gal. in 1982 and 345.0-million gal. in 1980. Sales of multigraded automotive oils spurted from 531.1-million gal. in 1982 to 592.3-million gal. in 1983. This, far above 1979's mark of 484.5-million gal. **N:N**

## Sun Required to Honor 1975-79 Battery Warranty

**Sun Refining and Marketing would be required to live up to its warranty obligations for automotive batteries sold with a lifetime guarantee, according to a proposed Federal Trade Commission consent order.**

The FTC said the firm sold more than 280,000 batteries under the brand name "True Blue Lifetime Battery" from 1975 through 1979. Each battery came with a lifetime warranty. But when buyers of the battery attempted to obtain warranty service after July 15, 1980, Sun did not grant full warranty rights.

Instead, consumers were given the choice of a battery with a 50-month pro-rata warranty or a refund of the purchase price of the True Blue battery, according to the agency.

The proposed consent order reinstates the lifetime warranty for consumers who received a replacement battery and for those who still own the car in which the original battery is installed. Sun is required to notify owners, dealers and distributors of the True Blue Battery of the lifetime warranty reinstatement. **N:N**

## GM Warns Diesel Owners Against Use of 10W-40

**In its 1985 model year owners manuals, General Motors is warning motorists not to use 10W-40 motor oil in diesel vehicles. Last year, the company only recommended that motorists refrain from using the multi-grade product in diesel models.**

"We find that carbon deposits build up in the valve train and combustion chamber, especially in diesel engines," says a company spokesman. The problem, he says, has also cropped up on gasoline models, but not as severely.

For its mid-sized engines, GM recommends several motor oil viscosities, depending upon temperature. Among those listed are multi-grades 15W-40 and 10W-30.

The owners manuals also recommend using API designated SFCC motor oil, warning motorists not to use any oil labeled SA, SB, SC, SD, CA, CB, CC, or CD or any combination of those letter designations.

"Using any one of those oils could cause engine damage," says the spokesman. **N:N**

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